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Anthony Gottlieb (*Books, p. 76*) is the author of, most recently, "The Dream of Enlightenment."

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Jonathan Blitzer on how New York City funeral-home workers are responding to the coronavirus crisis.

THE NEW YORKER INTERVIEW

Amanda Petrusich talks to Tori Amos about politics, life on the road, and the songwriter's new memoir.

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LEFT: SINNA NASSERI FOR THE NEW YORKER; RIGHT: DEUN IVORY FOR THE NEW YORKER

THE MAIL

A HIGHER LOVE

Casey Cep's sophisticated analysis of that quintessential New Yorker Dorothy Day made me forget the virus, at least for a few minutes, and look forward to reading John Loughery and Blythe Randolph's biography of the would-be saint (Books, April 13th). But it also made me want to put in a good word for Forster Batterham, who is sometimes misconstrued as the villain of Day's story. The usual understanding is that Batterham was an atheist cad who "did not believe in marriage," as Cep notes. But Robert Ellsberg, in his collection of Day's letters, reveals that the emotional relationship between the two persisted for years. Why didn't Batterham marry Day, despite her entreaties? Surely their unconventionality as a couple was a significant roadblock, as were their religious disagreements. (Batterham's relatives, whom I know through my academic endeavors, have told me that he lamented, wryly, that Day "left me for another man—God.") Perhaps a third factor was that Day had already been married once, to Berkeley Tobey, whom she wed shortly after her abortion, and whom she abandoned a year later, in Europe. Nevertheless, the letters between Day and Batterham show that they remained connected, if at a distance, for the rest of their lives.

Jack Selzer
State College, Penn.

THE DIMENSIONS OF GRIEF

Thank you for publishing Jonathan Blitzer's beautiful eulogy for Juan Sanabria, a New York City doorman who passed away from COVID-19 (Postscript, April 20th). During this time of constant statistical updates about numbers of cases, I.C.U. admissions, available ventilators, and deaths owing to the pandemic, it is easy to lose sight of the magnitude of the human tragedy. By telling the story of one man who became ill, and of the people—his family, his colleagues, and the residents of the building where he worked—who are bereft at his loss, you have enlarged our comprehension of what is happening behind the numbers. Truly, the only thing spreading more rapidly than the virus is grief.

Elizabeth M. Swift
Sylva, N.C.

MISSION IN UGANDA

We, as the No White Saviors team, are writing in response to Ariel Levy's article about Renée Bach, whose organization operated a dangerous, unregistered medical clinic in Jinja, Uganda ("The Mission," April 13th). A core tenet of our work is holding missionary and development organizations, such as the one run by Bach, accountable for their unethical actions in local communities. It is unfortunate that *The New Yorker* seems to feel that Bach, who is currently under investigation for her role in the deaths of multiple children, is more worthy of a sympathetic profile than those Ugandans whose lives were irreversibly affected by her choices. The article represents a missed opportunity for the magazine to show how the horrific actions of Bach, like those of others who abuse their power and privilege, harmed the very people she was claiming to help.

We hope to make it clear that this case should never be boiled down to a personal issue between N.W.S. and Bach. Our organization was formed out of a collective desire to put justice first and to insure that human rights are upheld. Levy's piece seems to privilege Bach's feelings over the lives of Ugandans. This is a disservice not only to your readers but to those whose voices are so often ignored.

Alaso Olivia Patience, Kelsey Nielsen, and Lubega Wendy
Kampala, Uganda

•

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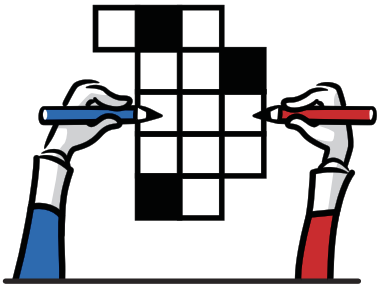

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THE NEW YORKER

In an effort to slow the spread of the coronavirus, New York City museums, galleries, theatres, music venues, and cinemas have closed. Here's a selection of culture to be found online and streaming.

GOINGS ON ABOUT TOWN

The century-old West Village piano bar **Marie's Crisis** has shut its doors amid the pandemic, but the Broadway sing-along continues every night via Facebook Live. The bar's crooning waitstaff is there, too. "It's been an amazing experience to create this online community," Yvette Monique Clark (above), who has worked at Marie's Crisis for five years, says. (Her signature number: "When You're Good to Mama," from "Chicago.") Catch her on Sundays and Thursdays, belting from her Flatbush apartment.

PHOTOGRAPH BY RYAN DUFFIN

DANCE

"The Bright Stream"

In 2005, the Bolshoi Ballet came to New York under the direction of a young, little-known choreographer—Alexei Ratmansky. Amid a parade of blockbuster ballets, the company performed one of his works, "The Bright Stream." This spoof of Soviet-era propaganda—a happy farce set on a collective farm—turned out to be a total delight. The score, by Shostakovich, was infectious (who knew his music could be so jolly?), and the plot was worthy of Beaumarchais. It put Ratmansky, now one of the world's leading ballet choreographers, on the map. Besides the wit of the choreography and the appealing clarity of the storytelling, "The Bright Stream" perfectly captures the exuberant dancing style of the Bolshoi. On May 3, the company will broadcast a 2012 performance of the piece on its YouTube channel.—*Marina Harss (youtube.com/user/bolshoi)*

Fisher Center "Upstreaming"

In recent years, the Fisher Center at Bard College has grown into a major player in dance, with an impressive track record of aesthetic successes. Rather than replacing its new online offerings each week, as many institutions are doing, the Fisher Center has been adding to the pile. So far, its archive includes a terrific 2015 program by Pam Tanowitz Dance, accompanied by the Flux Quartet; a 2016 rethinking of Beth Gill's surreal and cinematic "Catacomb"; and a 2017 performance of Tere O'Connor's formally intricate, agitated, and ambiguous "Long Run." The latest addition: "Chambre," Jack Ferver's campy 2014 take on Genet's "The Maids."—*Brian Seibert (fishercenter.bard.edu/upstreaming)*

SF Ballet @ Home

For audiences stuck at home, San Francisco Ballet, a world-class troupe with sophisticated dancers and a commitment to expanding its repertory, has been sharing pieces from its ultra-ambitious 2018 Unbound festival, which unveiled a dozen new works by leading choreographers. This week's selection, Edwaard Liang's "The Infinite Ocean," isn't the most exciting or original, but it's a handsome, death-haunted vision of letting go, and it shows off the dancers. If rights agreements can be reached, Unbound works of greater distinction—by Alonzo King, Justin Peck, and Trey McIntyre—may be scheduled soon.—*B.S. (sfballet.org/sf-ballet-home)*

"The Winter's Tale"

In this ballet, the choreographer Christopher Wheeldon—the man who brought "An American in Paris" to Broadway—manages to turn one of Shakespeare's most difficult plays into a taut piece of dance theatre. Jealousy, brutality, exile, false identity, death, and a return to life are depicted through stylized choreography that captures, with bracing clarity, the mental state of each character. Even Shakespeare's language—for example, his description of the spiderlike poison of jealousy—finds its way into the fabric of the dancing. This darkness is leavened by a second act full of ecstatic faux-folk dances, set to music performed onstage by a Balkan-influenced band. Starting on May 1, London's Royal Ballet will broadcast a 2014 production of the work, starring Edward Watson—the company's resident antihero—and Lauren Cuthbertson, on its YouTube channel.—*M.H. (youtube.com/royaloperahouse)*

PODCASTS

Field Recordings

A key part of the art of radio, as any narrative-audio producer will attest, is making field recordings: pure diegetic sound, recorded on location, that conveys the aural texture of a place. In this new podcast from Eleanor McDowall, the series producer of BBC Radio 4's "Short Cuts," field recordings become the art itself. There's the rumbling "Backyard Storm, Darwin, Australia," with sounds of a rapt, whispering five-year-old and a tropical storm rolling in; the barking dogs and twittering birds of "Hough End Clough, Manchester, U.K.," with the rough urban charm of wild land "between a main road and a police-dog kennel"; workaday construction and traffic in the Gaza Strip, in 2017; teeny, noisy frogs in Hilo, Hawaii; people in Rome singing "Volare" during self-quarantine. McDowall conceived of the series two years ago, at a time when she was feeling burned out and "just wanted to stand still and listen to the birds"; its timeliness is unintentional and welcome as it transports listeners with the quotidian joys of wandering around somewhere new.—*Sarah Larson*

ART

"Judd"

Donald Judd was the last great revolutionary of modern art. The gorgeous boxy objects—he refused to call them sculptures—that the American artist constructed between the early nineteen-sixties and his death, from cancer, in 1994, irreversibly altered the character of Western aesthetic experience. They displaced traditional contemplation with newfangled confrontation. That's the key trope of Minimalism, a term that Judd despised but one that will tag him until the end of time. His

PODCAST DEPT.

The California-based producers Davia Nelson and Nikki Silva, who work together as the Kitchen Sisters, have been producing immersive, beautifully observed, historically relevant stories for public radio since 1979. Their style is both distinctive and invisible: rich in audio delights but minimally hosted, narrated largely by interviewees. **"The Kitchen Sisters Present,"** from Radiotopia, is a treasure trove of the duo's recent and earlier work. "Waiting for Joe DiMaggio," from 1993, about the retired ballplayer's attempt to visit the Sicilian village of his family's origin, tells a quiet story that amazes, as does "Tupperware," an influential early piece, from 1980, that takes us to—and far beyond—a Tupperware party. Other classic episodes feature Studs Terkel's "Working" interviews; Charles Aznavour reminiscing about nights with Edith Piaf; and, in "Shirley," a Vietnamese-American nail salon and the legacy of Shirley Temple. For quarantined listeners wistful for another New York, the 2001-02 "Sonic Memorial" series, about the World Trade Center area, and a recent foray into the New York Public Library's Lou Reed Archive are particularly striking, warm, and powerful.—*Sarah Larson*

ILLUSTRATION BY ELENA XAUSA

ART FOR RELIEF

On March 30, **An-My Lê** took her wooden, large-format Deardorff camera—the same make favored by Ansel Adams—to the Brooklyn waterfront, to witness the U.S.N.S. Comfort sailing under the Verrazzano-Narrows Bridge. The sweeping view in the resulting picture (above) offers no hint of the complications surrounding the floating hospital's time in New York, unless you count the drama of a red windbreaker echoing the red crosses on the Comfort's hull. (Lê, who is a MacArthur "genius," is an artist, not a photojournalist, but an observer's detachment is one of her trademarks.) This isn't the first time that the Vietnamese-American artist has photographed naval vessels. From 2005 to 2014, she travelled to more than twenty countries for her series "Events Ashore," which, like all her projects, is entwined with her personal history: in 1975, when she was fifteen, Lê and her family were evacuated from Saigon by the U.S. military. A hundred per cent of the proceeds from this limited-edition photograph (available through the Marian Goodman gallery) will benefit the nonprofit NYC Health + Hospitals, which supports medical workers at the front lines of the pandemic.—*Andrea K. Scott*

works register as material propositions of certain principles—chiefly, openness and clarity. They aren't about anything. They afford no traction for analysis while making you more or less conscious of your physical relation to them, and to the space that you and they share. As installed by the curator Ann Temkin, with perfectly paced samples of Judd's major motifs—among them, floor-to-ceiling "stacks" of shelflike units, mostly of metal-framed, tinted Plexiglas, which expose and flavor the space they occupy—the second of the show's four big rooms amounts to a Monument Valley of the minimalist sublime. (MOMA is temporarily closed; tour the virtual exhibition and listen to twenty-one artists and writers respond to Judd's art on its Web site.)—*Peter Schjeldahl (moma.org)*

Art 21

Ten days after 9/11, when people's spirits desperately needed a lift, PBS aired the first episode of "Art in the Twenty-first Century," a fly-on-the-wall documentary series that bet (with all due respect to Sister Wendy) that artists are the best guides to their own work. Maya Lin, Sally Mann, and Kerry James Marshall were among those who welcomed cameras into their studios for the first season. So did the sculptor Andrea Zittel, whose functional sleeping pods in the California desert now look like enviable spots to shelter in place. Today, after nine broadcast seasons—a tenth arrives later this year—two Peabody Awards, an Emmy nomination, and many digital shorts produced for its Web site, Art 21 is streaming more than five hundred films at art21.org. Subjects range from household names (Marina Abramović and Ai Weiwei) to young painters on the rise (Aliza Nisenbaum, Avery Singer) to the Bay Area-based social-practice artist Stephanie Syjuco, whose latest project is sewing COVID-19 masks for food-bank volunteers, the families of medical workers, and others in need. Art 21 also bundles its films into visual "playlists," with running times of one to two hours; to combat cabin fever, watch fourteen artists take to the open road in "En Route."—*Andrea K. Scott (art21.org)*

Allan McCollum

"Everything will be O.K."—so say hundreds of fictional characters (and President Barack Obama) in this veteran conceptual artist's online slide show, which he began in 2015. Straightforwardly titled "An Ongoing Collection of Screengrabs with Reassuring Subtitles," its archive now numbers twelve hundred closed-captioned images lifted from movies and TV. Slight variations on those comforting words—"Look, it's all gonna be fine"; "It's okay, alright"; "You're safe"—are spoken to frowning children, frightened patients, skeptical participants in risky plots, and stunned witnesses of crimes or supernatural events. McCollum is interested in the tension between repetition and uniqueness in the age of mass production; here, he considers minor variations in an assembly-line cliché used in scripts from "The X-Files" to "The Irishman." The relentless consolations are amusing and, cumulatively, even improbably reassuring. (McCollum is also the subject of a career retrospective at the Institute of Contemporary Art, Miami, which can be viewed virtually on the museum's Web site.)—*Johanna Fateman (allanmccollum.net/1/everythingsok/ok/ok.html and icamiami.org)*

Timothy Washington

This seventy-four-year-old American artist grew up in the Watts neighborhood of Los Angeles, not far from Simon Rodia's towers, and his own intriguing assemblages suggest anthropomorphic offspring of those famous steel-and-mosaic spires. Washington's first show in New York, "Pucker Up," was installed at the Salon 94 gallery in March, but it never opened to the public; happily, the photogenic six-decade survey can be viewed online. The heart of the show is a procession of elongated figures on a turquoise platform, exuding both totemic power and personal charm. "Love Thy Neighbor," from 1968, is an outlier made of metal and nails (Christian themes mingle with Afrofuturism in Washington's work); most of the other pieces are made of glue-soaked cotton on wire armatures, encrusted with ceramic fragments, jewelry, coins, buttons, beads, toys, and even clock faces. Washington's heartwarming straw-into-gold ingenuity is especially evident in a colorful character with a transparent, bauble-filled torso, whose title is "I Love You."—*J.F. (salon94.com)*

TELEVISION

Killing Eve

This espionage thriller arrived as a bewitching oddity: a Euro-chic slash-'em-up that decorated scenes of inventive slaughter and sweaty investigation with blots of macabre wit, and grounded them in personal frustration. The plot maneuvered a cop and a killer into a codependent romance; last season left off with the delicious villain (Jodie Comer, as a soignée assassin) shooting and leaving for dead the humble hero (Sandra Oh, as an M.I.6 officer). For its next trick, "Killing Eve," now in its third season, cracks apart the genre it invented. Eve, alive but spinning in a spiritual limbo, is pulled back into a spy game that plays, almost cohesively, as a moody subversion of its sui-generis formula. Oh's erstwhile agent collaborates with the editor of an investigative Web site; Comer's assassin, chipperly psychopathic,

COURTESY THE ARTIST AND MARIAN GOODMAN GALLERY

advances through the ranks of her shadowy crime syndicate. The show accommodates a grim meditation on guilt, a sentimental gloss on parenthood, and a camp-tinged nightmare about the managerial challenges of running hit men and overseeing detectives.—*Troy Patterson*

MUSIC

Fiona Apple: "Fetch the Bolt Cutters"

INDIE The title of Fiona Apple's fifth album, "Fetch the Bolt Cutters," conveys the prickling, sweat-soaked urgency of someone stifled for too long. The music, with its swells of crashing pianos and jaunty melodies turned upside down, tingles with hot desperation: Apple lets out a feverish squeal on "I Want You to Love Me," and her breath runs ragged on the album's eponymous track, which closes on a frenzied chorus of barking dogs. But at the center of it all sits her quiet meticulousness as an auteur. Since the nineties, she's been so steely-eyed an observer of the world that it can be terrifying to dive into her depths. On songs such as "Relay," she persuades her listeners to sit with her intimacies and inspires their own self-reckonings, which can feel as alarming and as revelatory as suddenly noticing a cut that's been gushing blood.—*Julyssa Lopez*

Bang on a Can Marathon

CHAMBER MUSIC The annual marathon concert mounted by Bang on a Can, the imaginative collaborative formed, in 1987, by the composers Michael Gordon, David Lang, and Julia Wolfe, has always been about rubbing elbows: disparate musical styles share the same stage, and large, diverse audiences pack the hall. Bang on a Can had intended to stake out even more elbow room this month with the début of Long Play, a three-day festival in Brooklyn. Instead, the collective is responding to the present crisis and its required distancing with a new kind of creative feat—a six-hour, all-live Webcast, comprising four world premières and twenty-six solo performances by artists such as Meredith Monk, Vijay Iyer, Claire Chase, Zoë Keating, and Moor Mother. The event streams for free at marathon2020.bangonacan.org.—*Steve Smith (May 3 at 3.)*

Brendan Benson: "Dear Life"

ROCK As a co-pilot of the Raconteurs, Brendan Benson has the unenviable task of sharing the stage with Jack White, an undertaking akin to duetting with a box of firecrackers. Rare is the rock singer who dreams of life as a group's straight man, but the role has its perks: it's provided Benson with an audience beyond the reach of most power-pop veterans. On his solo album "Dear Life," Benson's charmed melodies continue to pour forth, hitched to subjects familiar to songwriters of a certain age—emotional fragility, mortality, and, most pointedly, redemption through fatherhood. Like his Raconteurs sparring partner, Benson approaches rock and roll with reverence, yet, on "Dear Life," he takes determined baby steps away from a formalist approach. The computerized drums may not qualify as hip-hop or pop, but they exist in a world ruled by those genres. The production tactic yokes his album to the present: "It's good," Benson sings, "to be alive."—*Jay Ruttenberg*

Beth Morrison Projects: "Angel's Bone"

OPERA Beth Morrison Projects, the tiny, feisty production company responsible for a sizable portion of the strongest new opera mounted in the twenty-first century, saw its characteristically ambitious schedule of live performances evaporate as the COVID-19 pandemic took hold. Like other institutions shuttered by the crisis, Morrison & Co. turned to the Web: a new "Opera of the Week," drawn from the company's archive of past triumphs, is posted each Thursday at bethmorrisonprojects.org. This week's offering is Du Yun and Royce Vavrek's "Angel's Bone," in a production directed by Michael Joseph McQuilken. The Pulitzer Prize-winning work—which was scheduled to play this month at L.A. Opera—is a fantastical allegory about child trafficking, set to an explosive cocktail of Renaissance polyphony, musical theatre, and punk rock.—*S.S. (April 30-May 7.)*

DaBaby: "Blame It on Baby"

HIP-HOP DaBaby's surprise release, "Blame It on Baby," could have gone any number of ways. Is the Dirty South rapper, who's photographed in a face mask on the cover, experiencing a pandemic-facilitated epiphany about life, or is he suiting up to hurtle into the world? The intro, "Can't Stop," makes the answer clear: DaBaby lingers just long enough on recent assault allegations to dismiss them, and his insatiable cockalorum is now layered with defensiveness and self-pity over beats that, admittedly, still bop. Thick reverb, two-bar loops, and gravity-free synths propel his brawly rhymes. Nowadays, though, there's limited entertainment in a charismatic barker tying himself in knots to deflect blame.—*Oussama Zahr*

Luke Slater: "Berghain Fünfzehn"

TECHNO The Berlin night club Berghain—shut down for now, of course—has become synonymous with a hard, neo-psychedelic approach to techno. To mark the fifteenth anniversary of the venue's label, Ostgut Ton, the British techno producer and d.j. Luke Slater mixed the two-hour "Berghain Fünfzehn." (It's available as a free download from Berghain's Web site and as a SoundCloud stream.) The set's composition is particularly notable: Slater carved out his favorite sections from more than a hundred and fifty releases in Ostgut's catalogue to create twenty-three new tracks. If you want to hear what the past decade and a half of techno sounded like in one go, it's a great place to start.—*Michaelangelo Matos*

Solal & Liebman: "Masters in Paris"

JAZZ Devotees of foreign film have heard Martial Solal even if they aren't familiar with the brilliant jazz pianist and composer—his few original themes, brief but apposite, enliven Jean-Luc Godard's 1960 New Wave classic, "Breathless." Solal's contribution to cinema history, momentous though it is, is just a footnote to his remarkable seventy-plus-year career. "Masters in Paris," the second volume of his 2016 encounter with the formidable American saxophonist Dave Liebman, is predictably stupendous—even more so when Solal's age (eighty-nine at the time) is taken into account. Romping through a bundle of standards, the Algerian-born virtuoso displays the technical acuity and unself-conscious idiosyncrasy that have always brightened his playing, and Liebman, nineteen years Solal's junior, demonstrates why he's among the most respected of post-bop stylists on both his tenor and his soprano horns.—*Steve Futterman*

MOVIES

Cedar Rapids

The director Miguel Arteta brings energy and substance to this clever, tender comedy, from 2011, about an innocent out of his depth. Ed

CLASSICAL LIVE STREAMING

As classical-music companies get their bearings in these uncertain times, they're realizing that their artists are better positioned than many to continue entertaining audiences: all they need to put on a show is their instrument and a sturdy Internet connection. **Carnegie Hall,** the principal way station for international soloists and ensembles visiting New York City, has pivoted to a schedule of free live streams, hosted on its Web site, carnegiehall.org, on Tuesdays and Thursdays. **Joshua Bell,** a violinist who launches bold arcs of sound from his bow without sacrificing nuance, plays sonatas by Eugène Ysaÿe on April 30 at 2. Two regular collaborators, the pianist Jeremy Denk and the cellist Steven Isserlis, join him for excerpts from Mendelssohn's churning Piano Trio in D Minor.—*Oussama Zahr*

ILLUSTRATION BY CHIARA LANZIERI

Helms stars as Tim Lippe (rhymes with "hippie"), a woefully unworldly insurance salesman in small-town Wisconsin who is having an affair with Macy Vanderwei (Sigourney Weaver), his former middle-school teacher. Sent to a convention to deliver a speech, he's forced into an uneasy intimacy with colleagues who try to break him out of his shell but accidentally put his career at risk. The screenwriter, Phil Johnston, invents gleefully crunchy names for his characters, and Arteta breezily exalts the actors who play them. Isiah Whitlock, Jr., is the nerdy Ronald Wilkes (the Ronimal); John C. Reilly plays the rowdy blowhard Dean Ziegler (Deanzie), and Anne Heche brings pathos and whimsy to the role of Joan Ostrowski-Fox (O-Fox), a randy mom-on-a-spree. Despite a pat takeaway, the film delights in the comic round of venial and mortal sins that keep America's heartland beating.—*Richard Brody (Streaming on Amazon, Vudu, and other services.)*

Daisy Miller

Peter Bogdanovich's 1974 adaptation of Henry James's 1878 novella is one of the few great films based on a great book; its acerbic humor matches the tale's stifled horror of stifling morals. Cybill Shepherd stars as the free-spirited young American in Europe, who adapts easily to the romantic airs of European society and whose relationship with the expatriate American Frederick Winterbourne (Barry Brown) is spoiled by her uninhibited ways. Bogdanovich replicates the sinuous psychological intricacies of James's sentences with florid long takes that follow Shepherd through the filigreed opulence of the period décor and capture the spontaneous choreography of her performance. The light and the settings are reminiscent of paintings by Renoir—though the narrow American mores of the time lead to comedic absurdities that have no place in Impressionism. Brown (who died in 1978, at the age of twenty-seven) displays a deft, coruscating irony that's both befitting of the drama and altogether modern; Bogdanovich's bravura display of directorial style is as insightful as it is thrilling.—*R.B. (Streaming on Vudu, YouTube, and other services.)*

The Day I Became a Woman

Marzieh Meshkini's three-part feature, from 2000, set on the Persian Gulf island of Kish, depicts—with surprisingly jubilant yet unflinching visual and dramatic imagination—the ordeals faced by women, from childhood to old age, in Iranian society. The first part involves a girl who's banned from playing with her best friend, a boy, with whom she nonetheless manages—in a scene of vast allusive implications—to share a snack through the jail-like bars of his window. In the second story, a married woman defies clergymen and her husband to join a large group of female cyclists who are pedalling urgently along a narrow seaside road—a passionate ride of freedom with a funereal tone, a spectacular fusion of kinetic ecstasy and tragedy. The third part features an elderly woman who spends her savings on a wide array of household goods that she had been denied all her life—especially a bedroom set, including a big bed and a wedding gown. Throughout, Meshkini creates indelible images of mighty symbolic and psychological power.—*R.B. (Streaming on Vimeo.)*

The Mule

Clint Eastwood directs and stars in this hard-nosed, tenderhearted, rowdy, and anguished crime drama, from 2018, based on a true story. He plays Earl Stone, a Peoria horticulturist who, after losing his house and garden to foreclosure, accepts an offer to haul loads of drugs from Texas in his pickup truck in exchange for big cash payouts. Earl had alienated his family—especially his daughter, Iris (played by Eastwood's daughter, Alison Eastwood)—by putting his career first. Now he both enjoys his underworld adventures and uses his new wealth to mend fences—but federal agents (Bradley Cooper and Michael Peña) are tracking the cartel for which he works. Eastwood shines as a roguish coot who, under his crusty manner, is a master manipulator—albeit a principled one. The expansive, cleverly plotted action has the romantic resonance of a regretful self-retrospective, for both Earl and Eastwood; it plays like a summing up of a life's work and pain. With Dianne Wiest.—*R.B. (Streaming on Amazon, HBO Now, and other services.)*

Stories We Tell

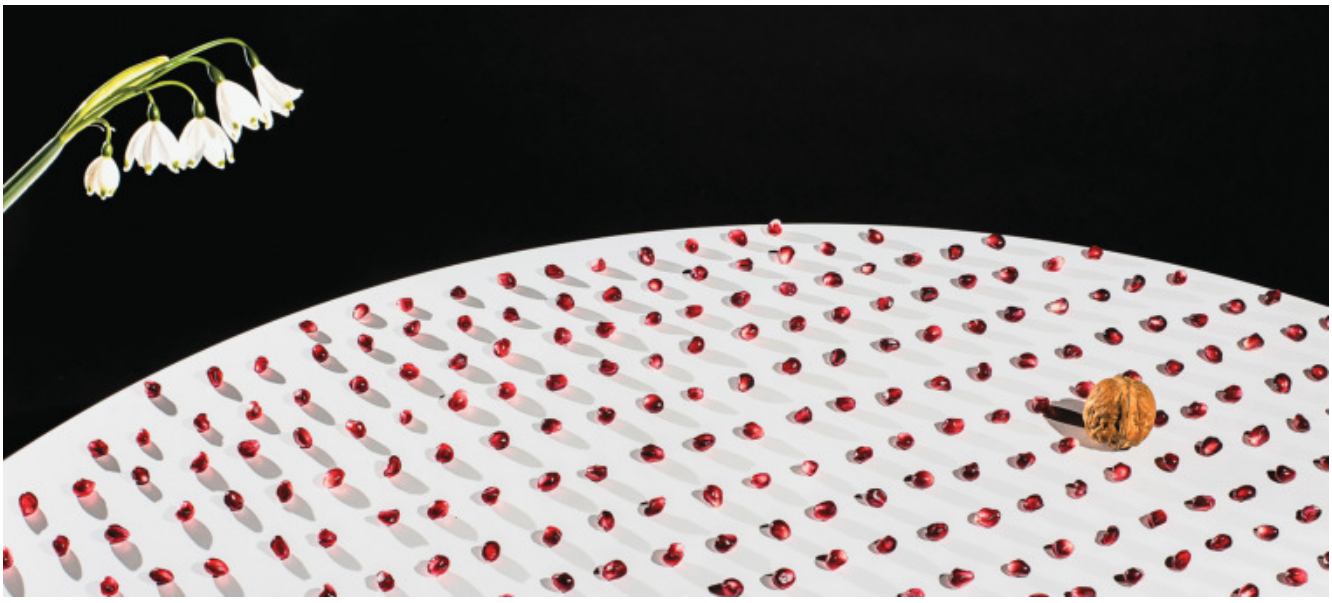
Sarah Polley's 2012 documentary is a startling mixture of private memoir, public inquiry, and conjuring trick. On camera, she quizzes a long list of relatives and friends, beginning with her father, Michael, and her siblings. The subject is Polley's late mother, Diane, an effervescent soul, as we see from old home movies; as the story unfolds, however, the footage seems to be so profuse, and so oddly convenient, that we start to question our own assumptions about her—which is exactly what Polley had in mind. (She is an actor, as both of her parents were; clearly, an acute strain of make-believe runs in the blood.) The main secret that is dug up by Polley's investigations is somehow more invigorating than traumatic, although there are hints of collateral anxiety among her brothers and sisters; the very ordinariness of the saga, however, becomes its strength, and, if viewers leave feeling destabilized, determined to chip away at the apparently fixed narratives that sustain their own families, then the movie's job is done.—*Anthony Lane (Reviewed in our issue of 5/27/13.) (Streaming on Amazon, Google Play, and other services.)*

For more reviews, visit
newyorker.com/goings-on-about-town

WHAT TO STREAM

OSCILLOSCOPE / EVERETT

This year's edition of the Maryland Film Festival, a prime showcase for American independent films, scheduled to run April 29-May 3, has been postponed because of the coronavirus. The Baltimore-based event has launched many daring and accomplished low-budget films by young filmmakers, including Anna Biller's second feature, **"The Love Witch,"** which had its U.S. première there in 2016. (It's streaming on Kanopy, YouTube, and other services.) Biller did more than write and direct the movie; she also made, by hand, its elaborate costumes, sets, and props, re-creating the flamboyant styles of late-sixties melodramas and horror films—and those of pagan rites and a giddy Renaissance fair. Amid these splashy tones, the mysterious title character, a Wiccan named Elaine (Samantha Robinson), glides into a small California town, in a red convertible that matches her dress and luggage, and unleashes her seductive enticements and hallucinogenic potions on its male population. Biller, pulling Elaine between desire and revenge, calculating control and ecstatic abandon, brilliantly symbolizes the bitter paradoxes of women's lives and struggles—both romantic and political.—*Richard Brody*



TABLES FOR TWO

QQ group:1067583220

Taste of Persia

According to one school of culinary thought, the best way to prepare vegetables is barely at all; they should be eaten as fresh and as close to raw as possible. Lately, I've been appreciating the opposite: the power of a long, slow cook. The other night, I marvelled at the way pods of okra split open into silky starbursts when simmered as long as the chef Saeed Pourkay does for his *khoresht bamieh*, a traditional Iranian dish. The stew, which I ordered for delivery, was thick with the okra's perfectly round, yellowish seeds; every few bites yielded a tender morsel of shaggy beef, too.

The fact that Pourkay, who is sixty-seven, is managing to make and deliver large quantities of food on his own during a pandemic will come as no surprise to anyone familiar with his life story, which he himself describes, rather matter-of-factly, as "very inspirational." For decades, he and his four brothers, émigrés from Tehran, ran a printshop in Manhattan. In 2010, Pourkay sold his share and returned to Iran for a visit, where he rediscovered a latent childhood interest in cooking.

Back in New York—broke after a series of bad investments and sleeping in a friend's warehouse in the Brooklyn Navy Yard—he decided to try making a living from his newfound hobby. He persuaded the organizers of the Union Square Holiday Market to give him a stall rent-free: he'd sell Iranian food and pay them retroactively, at the end of the season. The owners of a nearby pizzeria let him use their kitchen after hours to do the cooking.

The experiment worked, and the pizzeria owners agreed to let him stay beyond the holidays and even to rent him a stretch of their counter. Taste of Persia was born, a restaurant within a restaurant, beloved especially for Pourkay's *ash reshteh*, a dense soup packed with lentils, split peas, noodles, onions, and herbs, topped with caramelized garlic, mint, and fermented whey.

All was well until a few months ago, when the pizzeria changed hands. According to Pourkay, the new owners asked that he pay half their monthly rent, instead of the quarter he had been contributing. He declined, and so they asked him to leave. They were on good terms, he thought, until he learned that Taste of Persia had been replaced with a knockoff—Tasty Persia.

After protests and press coverage, the pizzeria quickly closed Tasty Persia, and, in February, Pourkay began making plans to reopen Taste of Persia in a home of its own, with the help of tens of thousands of dollars raised from loyal customers via GoFundMe. But, just as he was preparing to sign a lease, New York's dining rooms were forced to close. By the end of March, he said, "I was constantly getting phone calls from my customers—'Can you cook for us?'" He was happy to oblige; the Middle Eastern markets near his home in New Jersey were open, which meant he had access to all the ingredients he needed.

Every week since, Pourkay has posted a short menu on his Facebook and Instagram accounts (@tasteofpersianyc): three or so dishes, sold in quart containers, with a side of saffron-laced basmati rice, to be ordered via e-mail for weekend delivery. On a recent Saturday, he delivered sixty orders throughout Manhattan himself; couriers made drop-offs in Brooklyn, Queens, and the Bronx. The family printshop, Print Icon, is closed to customers, but Pourkay's brothers have adapted quickly, too: they're using the shop's laser cutters to produce protective face shields, available to hospitals at a discount.

In addition to the *khoresht bamieh*, my haul included two other slow-cooked stews that use vegetables to stretch a bit of beef: *khoresht aloo esfenaj*, a luscious mix of spinach and prunes brightened with lemon and pomegranate juice, and *khoresht karafs*, with slippery, parsley-and-mint-flecked segments of celery and artichoke that had nearly dissolved, yet still tasted of spring. Persian food is perfect for these times because it "doesn't go bad that fast," Pourkay noted when we spoke on the phone. "You keep it in your refrigerator, three or four days—tastes even better." *(Dishes $17–$25.)*

—Hannah Goldfield

PHOTOGRAPH BY BRYAN ANSELM / REDUX FOR THE NEW YORKER; ILLUSTRATION BY JOOST SWARTE

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THE NEW YORKER

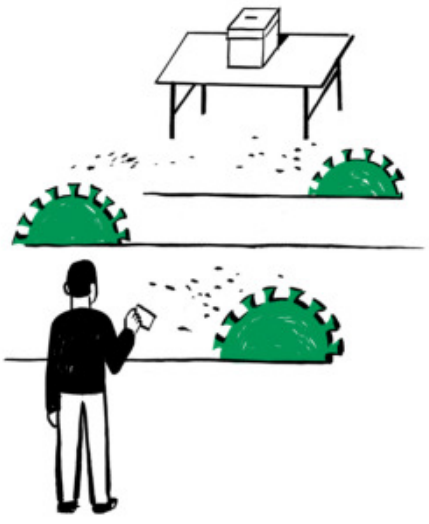
THE TALK OF THE TOWN

COMMENT
PANDEMIC POLITICS

In late March, it became evident in the states holding Democratic primaries and other elections in April that, because of the coronavirus, it could be irresponsible to have voters cast ballots in person. Some states announced that they would postpone their elections, while Ohio (which had already done so) joined Alaska and Wyoming in moving to vote almost entirely by mail. Tony Evers, the Democratic governor of Wisconsin, sought to expand the use of mail-in ballots, but Republicans controlling the state legislature blocked him, arguing that the plan was unworkable, might foster fraud, and was, in any event, unnecessary. "You are incredibly safe to go out," the Assembly speaker, Robin Vos, assured the electorate.

The standoff inspired lawsuits, and, on April 6th, the day before the vote, the U.S. Supreme Court ruled, 5–4, not to allow Wisconsin voters extra time to mail their ballots. (All the conservative Justices opposed giving extra time; all the liberal Justices supported it.) Ruth Bader Ginsburg wrote, in a dissent, that the majority's belief that an election staged amid a pandemic would not be much different from an ordinary one "boggles the mind." The images from Election Day are indelible: Vos turned up as a volunteer poll worker, swathed in a protective gown, mask, and gloves, as citizens in homemade masks or with no protection at all lined up for blocks in some precincts, separated by the requisite two yards. The election's implementation was a fiasco. Milwaukee had planned to operate a hundred and eighty polling places but opened only five, owing to a dearth of volunteers, and more than ten thousand mail-in ballots requested by voters across the state never reached them, according to the Milwaukee *Journal-Sentinel*. Last week, the city's health commissioner announced that seven people had apparently contracted the coronavirus while participating in the vote.

The 2020 election is the first Presidential campaign in U.S. history to be upended by a deadly virus, and this comes on top of the burdens created by the divisive, reckless candidacy of Donald Trump. There are days when Trump and his backers seem to welcome the pandemic's strains on our democratic institutions. On April 17th, the President surpassed himself in cynical opportunism and self-contradiction when he tweeted out support for incipient protests against stay-at-home orders issued by Democratic governors—orders that aligned with the policy of the Trump Administration and the advice of its public-health experts. J. B. Pritzker, the governor of Illinois, said that Trump, by urging his Twitter following to "LIBERATE" Minnesota, Michigan, and Virginia, and by persisting with such incitement, has been "fomenting some violence." The right-wing Michigan Freedom Fund, supported in part by the family of Betsy DeVos, Trump's Education Secretary, promoted a protest in Lansing that attracted several thousand people, including some toting assault-style rifles. Trump's political aims seem apparent: with the economy in free fall, and his approval numbers soft, he is rousing his loyalists, particularly in swing states, counting on them—and a hoped-for economic rebound—to deliver a victory come November.



Americans love a good revolt, and the protests stoked by conservative networks and incendiary talk-radio hosts, such as Alex Jones, of Infowars, may appeal to some peaceable citizens fed up with confinement or chafing at the encroachments on civil liberties required by the quasi-quarantines. But, if Trump continues to run a populist campaign premised on jump-starting the economy in defiance of the advice of scientists and doctors, he will be fighting uphill—seven out of ten Americans say that it is more important to stay home to thwart the coronavirus than it is to return to work. Last week, Brian Kemp, the Republican governor of Georgia, took Trump's cue and announced a plan to reopen hair salons, bowling alleys, tattoo parlors, movie theatres, and restaurants, even though public-health specialists believe that such

ILLUSTRATIONS BY JOÃO FAZENDA

a move would be premature, because COVID-19 cases in Georgia haven't declined sufficiently. When experts denounced Kemp's plan, Trump flummoxed Republicans by joining them. Still, support for opening businesses quickly remains greater among Republicans than among Democrats or independents, and there is a danger that, in response, Republican governors and mayors may jeopardize the nation's recovery by lifting restrictions too soon. The Administration has also failed abjectly to provide enough tests to map the spread of the virus and the rates of recovery among those infected, depriving all governors and mayors of a vital means to manage risk while trying to revive jobs and businesses.

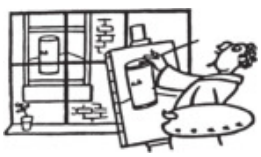
Unable to stage his trademark rallies, Trump has been forced to relocate his reëlection campaign to the White House press room, where, in the absence of fervent fans, his mixtape of sober reflections, false boasts, rants against reporters, and irresponsible touts of miracle cures—on Thursday, he speculated about injecting disinfectant—doesn't play so well. The President's inconsistency and unreliability may at last be catching up with him: only a quarter of Americans, and just half of Republicans, say that they trust what he says about the pandemic. But polls also indicate that he remains ahead or competitive in the states he won in 2016. The Democratic Party leadership has unified swiftly around Joe Biden, and yet on many days he barely surfaces in the news cycle, while Trump vacuums up attention.

Right now, voters are the Democratic Party's greatest asset; they have been turning out in droves and knocking off Republican incumbents with impressive regularity since 2018, even when their candidates are uninspiring. In Wisconsin, on April 7th, Democrats chose Biden over Bernie Sanders, as had been expected. But the voters stunned forecasters by electing a liberal justice to the Wisconsin Supreme Court, defeating an incumbent whom Trump had endorsed and narrowing the court's conservative majority to one. The justices are scheduled to decide before November whether to sanction a Republican-backed plan to purge two hundred thousand people from Wisconsin's voter rolls because they failed to respond to a letter inquiring about their addresses. (Trump won the state in 2016 by fewer than twenty-three thousand votes.) The proposed purge is part of a long-standing effort by conservative lawyers and activists to establish voting restrictions that disproportionately hurt Democrats. Trump recently called mail-in voting "a terrible thing." Perhaps the pandemic will have receded by November, but, if it hasn't, there is little reason to think that the President or his allies will surrender their positions. If homebound, frustrated Americans want a cause to rally around, they might consider demanding the right to vote without having to risk their lives.

—Steve Coll

ODDS AND ENDS DEPT.

MAKE DO



The last time the artist Tom Sachs was at his SoHo studio before he began quarantining with his wife and young son at their house in Queens, he had only thirty minutes to grab whatever he might need in order to work remotely. "I thought it was just going to be for a long weekend," he said, on a video call from his basement studio in Rockaway. "I brought my laptop and an extra phone charger. I brought a Cup O'Noodles cardboard box filled with the scraps that were on the table that were really disorganized. I only brought one pencil, so I'm shaving my pencil perfectly." Sachs, who is in his early fifties, has the wavy swept-back locks of a nineteen-thirties leading man, and the seductively rounded speech patterns and strong eye contact of a very good pitchman. Pre-virus, he was used to a more elaborate work setup. Sachs's studio is typically a bustling operation; his team of assistants, which he refers to as a "coven" ("I take the word from the matriarchy—we're actually about sixty per cent women"), labor side by side to produce sculptures and installations for major museums, scheduled years into the future, as well as collaborations with Nike.

Still, Sachs is more ready than most to take on the challenges of a suddenly constricted work environment. His sculptures—which have ranged from cheeky takes on consumer culture, such as a Chanel-logo chainsaw or a Prada toilet, to gussied-up reimaginings of street-culture avatars, such as boom boxes—look deliberately handmade, and are built out of everyday materials such as plywood, foam core, and duct tape. ("I can never make something as perfect as an iPhone, but Apple could never make something as flawed as what I do.") And his studio work has always involved a make-do ethos that would not be out of place on a Great Plains homestead—or during a New York City quarantine.

For years, he modelled his team's work on that of NASA, creating large-scale installations that provide a Sachs-made twist on a space camp or a Mars mission. With the arrival of the coronavirus, he decided to reinterpret another NASA tenet, I.S.R.U. ("in-situ resource utilization"), a term meant to gauge how astronauts can best use their limited on-site materials in space. Sachs's version, similarly, urges people to discover how much they can do with what they have at hand. On March 31st, he called on his quarter-million Instagram followers to watch a weekly video of his I.S.R.U. practice and submit their own. In one episode, Sachs showed how he rescued an AirPod that had fallen down a drainage hole by repurposing odds and ends.

Tom Sachs

(No spoilers, but the mission involved double-sided tape.)

On a recent Monday, on Instagram Live, he held the first of a series of I.S.R.U. "office hours," a conversation with his followers which, he felt, had philosophical potential. "The shiny part of this time is that it's allowing me to take a little pause and confront the existential abyss and see what I want to do with my life," he said. "The dark side is that I have all this time to confront the existential abyss and think about what I'm going to do with my life." Wearing a faded blue chore coat, AirPods now tucked securely in ears, he scanned queries on a laptop. "How can I intern for you?" he read aloud. "Great question." He pushed his glasses up and hesitated, his gaze drifting toward the scroll of real-time comments bubbling up on his iPhone screen. (From @naseba._: "Do you need to be talented to make art?"; from @jaypooleyjay: "If you ever moved to Canada would you adopt the superior Robertson screw system?") Sachs returned to the question: "How do you join the studio? The best way to join us is right now. Immediately. Do the research. Read the books we all read in the studio. The one I'd recommend this week is 'Endurance,' by Alfred Lansing. It's appropriate for this time. Required reading." (@e_fish007: "I'm on it!")

Sachs read another: "What's your go-to brand of spray paint?" Easy: "I'm really frustrated with Krylon, because you can't change the tips, but Montana has some great colors," he said. Then, "What's the museum with the best curation of contemporary art?" He paused. "I would highly recommend the Donald Judd show at the Museum of Modern Art, curated by Ann Temkin," he finally said. (@cooper_clementine: "Do you smoke weed?") "I hope it stays open for a little longer after the apocalypse, because then we can all go and see it and have a session about it." (@cooper_clementine: "Are you microdosing rn?")

Next: "Is it advised to maintain a schedule or routine during an isolated creation?" He rubbed his head. "You can go as hard as you can, but life's a marathon. Schedule in some fun, schedule recreation, observe weekends." (@cooper_clementine: "Mushrooms? Acid? DMT?") Sachs went on, "I don't believe in alarm clocks, but I live and die by the calendar. So that means going to sleep early, and getting up early, with the sun." His eyes wandered toward the screen. The questions were still coming.

—Naomi Fry

FREE ROOM DEPT.
AT YOUR SERVICE

The New York Four Seasons is not the most welcoming hotel, architecturally speaking. Designed by I. M. Pei and situated on East Fifty-seventh Street, between Madison and Park, it greets visitors with an intimidating slab of limestone façade and a metal awning that seems to want to clobber you. Reviewing the building in the *Times* when it opened, in 1993, Paul Goldberger was taken by "a reception desk that looks like a Judgment Day platform." Rooms now start at twelve hundred and ninety-five dollars. Or they did, two months ago.

Like so many businesses, the Four Seasons closed in March. On April 2nd it reopened, transformed into the city's cheapest and most civic-minded hotel—the first to host health-care workers free of charge. As of last week, there were a hundred and sixty such guests, sleeping, showering, and enjoying grab-and-go meals between long shifts of attempting to save the lives of COVID-19 patients. All are screened each time they enter the hotel, which is now using its more human-scaled entrance on East Fifty-eighth Street. Nurses take temperatures and run through checklists of symptoms before people are admitted to the "green zone" (or banished to the "red zone" for possible off-site treatment). Videos provided by the Four Seasons show that the lobby's usual cadre of super-attentive valets, bellhops, and concierges has been replaced by impassive metal stanchions, green directional arrows, and yellow crime-scene tape to enforce social distancing, although the onyx, marble, and soaring ceilings remain.

"It's basically hospital housing, but Four Seasons-style," explained Dr. Dara Kass, an E.R. physician at Columbia University Medical Center, speaking on the phone from her eighth-floor room. "You know why you're here when you walk into the building," she said, describing the lobby's vibe as "purposeful." But, she added, "the bed itself is still a Four Seasons bed." Like many guests, she was keeping away from home so as not to expose her family to the virus; Kass has a son with a compromised immune system due to a liver transplant. "This room was really a godsend," she said. "I have so many doctor friends who are living in their basements, or a closet. I have friends who have rented Airbnbs. I have a friend who rented an R.V. She and her husband are both E.R. doctors, and their daughter had a liver transplant like my son did, so they moved to the R.V. in the driveway and their au pair is living with the children inside the house."

Another hotel guest is Hallie Burnett, a nurse from Houston who had volunteered for New York duty. She flew in without knowing how she'd be accommodated, so it was a nice surprise, she said, when she heard, upon landing, that the Four Seasons had a room for her. She found many of the usual amenities—fancy shampoo, body wash, zillion-thread-count sheets—but also some more of-the-moment ones: "Big things of hand sanitizer, paper towels, disinfectant, gloves, biohazard bags to put our scrubs in as we walk in the door." There is no housekeeping, let alone turndown service, but Burnett said that guests can leave bags of dirty towels and linens out in the hallway for pickup, reducing the number of interactions between guests and staff. (According to a spokesperson, the hotel has roughly a hundred employees still on the job, down from its usual five hundred.)

The New York Four Seasons took this mission on at the prompting of its owner, Ty Warner, the Beanie Baby mogul. Rudy Tauscher, the hotel's general manager, organized the operational changes—effected in a mere five days—with the help of International SOS, a medical and travel-security consultancy. A German native, Tauscher has been working in New York hospitality for more than twenty years. On 9/11, he was managing the Trump International Hotel and Tower, which took in guests who had been working in the World

Trade Center. He remembers hosting people from Cantor Fitzgerald. "It was terrible," he said. He added that the coronavirus pandemic poses a different kind of challenge, and not only because of the health risks to his staff: "We're very service-driven. The human touch and connecting with humans is in our DNA, as with most of the luxury industry. But we are eliminating as much of that as possible." He sounded a bit rueful, or maybe just sleep-deprived. He, too, is self-isolating from family and friends—as well as from guests and staff. "No more mingling," he said. "It's all very abstract at this point."

Several other city hotels, with Governor Andrew Cuomo's encouragement, have followed in the Four Seasons' wake, including the InterContinental Times Square, Room Mate Grace, Yotel, and the Hudson Hotel. (Not the Trump International, however; as Tauscher pointed out, it is in a different category, owing to its many floors of residential condominiums.) Wythe Hotel, in Williamsburg, has partnered with N.Y.U. Langone to house some of that hospital's staff. Like Tauscher, Peter Lawrence, Wythe's owner, expressed a kind of existential hotelier's regret at present circumstances. "Hospitality people solve issues with empathy and kindness, by gathering people together and cooking for them and caring for them. And none of our skills are relevant at the moment; some are even dangerous," he wrote in an e-mail. "But we are starting to do our small part now."

—Bruce Handy

POSTCARD FROM BEFORE
BASKETBALL BALM

On a Monday evening, back when such places were still open, the singer and guitarist Stephen Malkmus took a seat at Sharlene's, a dive bar on Flatbush Avenue, in Brooklyn, where happy hour runs from 1 to 7 P.M. It was just before the release of "Traditional Techniques," the second album that Malkmus, who is fifty-three, has made without the Jicks, his longtime backing band, or as a member of Pavement, the indie-rock group he fronted during the nineteen-nineties. He described the album's title as "a little bit ironic." The phrase was borrowed from the German philosopher Theodor Adorno, who, in 1965, characterized the Beatles' music as "no more than traditional techniques in a degraded form."

"I was a little stoned that day," Malkmus said. "I thought, I'd like to attach myself to the Frankfurt School. That makes me seem smart." The record features non-Western instrumentation (*rabab*, *kaval*, *udu*, *daf*) and borrows from contemporary African artists, such as the Tuareg guitarist Mdou Moctar and the desert-rock band Tinariwen. The results are rich, dynamic, and pleasantly warm. Besides Adorno, the title also alludes to the folk LPs put out by niche labels such as Vanguard and Folkways in the eighties. "There's this cottage industry of labels where the musicians look like math teachers," he said. "They wear total normie outfits. It's normie radicalism." Though it has since been corrected, "Traditional" was briefly misspelled on the album's cover. "Trad atonal," Malkmus said. "It kind of worked."

Sharlene's is a few blocks southeast of Barclays Center, where the Brooklyn Nets were scheduled to play the Phoenix Suns that night. (Weeks later, the N.B.A. suspended the season, because of the coronavirus outbreak, and four Nets players tested positive for COVID-19.) In the mid-nineties, when alternative culture was reaching a sarcastic apex, indie rock and athletics felt fundamentally at odds. (Skateboarding was cool, but professional, uniform-requiring sports were too earnest and all-American to be taken seriously.) As the guitarist and vocalist in Pavement, a group that has been credibly dubbed the greatest indie-rock band of all time, Malkmus became the central avatar of the vaguely aloof slacker aesthetic. Pavement's music was stylishly disaffected; its most ardent fans were bookish outsiders. (The writer Chuck Klosterman once noted that the band has "a lot of abstract credibility among people who get mad at the radio.") Yet Malkmus has always been a sports fan. He is an avid tennis player—he's two years away from qualifying for the senior team in his club league—and speaks about various N.B.A. franchises and players with casual fluency.

As he headed to the arena, he described himself as "post-team." He wore a blue sweater, a terry-cloth wristband, and a Milwaukee Bucks hat. "I started as a college-basketball fan, because my father was really into U.C.L.A. They were a pretty progressive team in terms of the type of basketball they played. They dominated the early seventies," he said. "Now I come and go. In the last fifteen years, I realized that if I have to like a pro sport—well, I don't have to—I relate to basketball." He lives in Portland, Oregon, but he does not consider himself a serious Trail Blazers fan. "I feel like a person without roots. I'm from central California, so I used to go to Sacramento games." The city's team, the Kings, had just moved there. "They came from Kansas City, and they were not particularly good. I'm not going to throw my allegiance down," he said, laughing.

"I got you a rat to remind you of the subway."

Stephen Malkmus

"We're transient people in California."

While the players warmed up on the court, Malkmus cracked open a tallboy of Brooklyn Lager. "I would like to be one of those guys more than any other athlete," he said, as they stretched and shot baskets. "I know it takes an incredible amount of work, and travel, and boring nights, and airplane flights. But I would like to be hanging with James Harden and LeBron at some cool after-party in L.A. with secret bottle service."

Barclays Center contains a windowless cinder-block room with the words "LOVE" and "JOY" posted on the wall. It is known as the Meditation Room. Though the door is often locked, it is intended as a place for hysterical fans to pause and gather themselves. Malkmus said that sports have never made him cry. At his most worked up, he might curse at the TV, but even that's unusual. He keeps his cool. That evening, the Nets won, 119–97. "Another great night for the city of Brooklyn," he said dryly.

—Amanda Petrusich

POSTSCRIPT
THE HANDSHAKE

The handshake, a widespread social custom that has forged political alliances, sealed multibillion-dollar business deals, and taught fathers "a thing or two" about prospective sons-in-law, died alone last month, in quarantine. It was at least two thousand eight hundred years old. (An early appearance: a limestone dais, carved in the mid-ninth century B.C.E., depicting the Assyrian king Shalmaneser III hand in hand with a Babylonian ally.)

The cause of death? Sudden awareness by the general population that every surface on earth—and, especially, the appendages we use to touch said surfaces—are misted with an invisible, potentially lethal cocktail of viral droplets. The shake had been on life support since early March. After declaring a national emergency at a Rose Garden press conference, President Trump shook hands with assorted executives. Then Bruce Greenstein, the chief strategy-and-innovation officer of LHC Group, extended an elbow. The dominoes were falling. Mercado Libre, a Latin-American e-commerce platform, moved to replace the handshake in its logo with an elbow bump. The director general of the World Health Organization tweeted that he would now be greeting people with a "hand-on-heart" gesture. Others found the habit hard to shake. On March 9th, the Dutch Prime Minister announced a national no-shake policy, then turned and shook hands with a health official. "Oh, sorry!" he said. "We can't do that anymore. Sorry, sorry."

Dorothea Johnson, the founder of the Protocol School of Washington and a co-author of "The Power of Handshaking," couldn't bear the news. Reached by telephone, in Maine, she said, "It's how we connect to someone when we first meet them. Touching someone, it helps you create a friendship, a relationship. It's so important."

In "Primary Colors," the author, Joe Klein, calls the handshake "the threshold act, the beginning of politics." Rabin and Arafat, Reagan and Gorbachev, Nixon and the King of Rock and Roll, all went palm-to-palm. The U.S. President, according to one estimate, shakes hands with sixty-five thousand people per year. In 1907, President Teddy Roosevelt, known for his "pump handling," shook more than eight thousand hands in a single afternoon. Afterward, his biographer wrote, he went upstairs to "scrub himself clean."

A solid shake relies on a combination of grip and intuition. Pamela Holland, a co-author of "Help! Was That a Career Limiting Move?," has advised, "Go in, thumb up, at a right angle. Make sure you make the full contact, web to web. Two to three pumps, then drop. It's a little like a kiss: You'll know when it's over." A lot can go wrong. There are arm-twisters, bone-crushers, yankers, dead fish. "Some people are totally unsophisticated," Johnson said. Like who? She demurred. She once shook hands with Trump, a known handshake hater, but decorum held. "Not soft, not hard," she recalled. "It was brief. He is very adept at moving on."

It is often said that handshakes evolved as a way to show that you weren't holding a weapon. (The up-and-down motion would dislodge a dagger that had been hidden up a sleeve.) The Greeks put an image of the shake on gravestones, using it to link the living and the dead. Romans, who put it on coins, used it to link the living and the stuff they wanted to buy. The Quakers popularized it; they considered it to be more egalitarian than bowing. And yet the history of handshaking is riddled with conscientious objectors, ahead of their time. In 2015, a U.C.L.A. hospital established a "handshake-free zone" in its neonatal intensive-care unit. (Research suggests that substituting fist bumps cuts germ transmission by ninety per cent.) But the U.C.L.A. policy lasted just six months. In France, an Algerian woman was recently denied citizenship for refusing to shake an official's hand at her naturalization ceremony. She appealed on religious grounds; her petition was denied.

Sanda and Florin Dolcos, psychology researchers at the University of Illinois, have conducted a series of studies on the ritual's longevity. Their conclusion: it's a little like sex. "Handshake activity activates a part of the brain that also processes other types of reward stimulus: good food, or drinks, or something related to, um, closer physical interactions," Florin said.

The handshake is survived by the elbow bump, the foot shake, the peace sign, and the wave. "These customs do evolve," Sanda Dolcos said. "The replacements might seem awkward at first, because the handshake is so natural, so automatic, so ingrained. But people will find a new way." In lieu of flowers, send Purell.

—Micah Hauser

ANNALS OF EPIDEMIOLOGY

THE PANDEMIC PROTOCOL

The Epidemic Intelligence Service knows what to tell the public in an outbreak.

BY CHARLES DUHIGG

The first diagnosis of the coronavirus in the United States occurred in mid-January, in a Seattle suburb not far from the hospital where Dr. Francis Riedo, an infectious-disease specialist, works. When he heard the patient's details—a thirty-five-year-old man had walked into an urgent-care clinic with a cough and a slight fever, and told doctors that he'd just returned from Wuhan, China—Riedo said to himself, "It's begun."

For more than a week, Riedo had been e-mailing with a group of colleagues who included Seattle's top doctor for public health and Washington State's senior health officer, as well as hundreds of epidemiologists from around the country; many of them, like Riedo, had trained at the Centers for Disease Control and Prevention, in Atlanta, in a program known as the Epidemic Intelligence Service. Alumni of the E.I.S. are considered America's shock troops in combatting disease outbreaks. The program has more than three thousand graduates, and many now work in state and local governments across the country. "It's kind of like a secret society, but for saving people," Riedo told me. "If you have a question, or need to understand the local politics somewhere, or need a hand during an outbreak—if you reach out to the E.I.S. network, they'll drop everything to help."

Riedo is the medical director for infectious disease at EvergreenHealth, a hospital in Kirkland, just east of Seattle. Upon learning of the first domestic diagnosis, he told his staff—from emergency-room nurses to receptionists—that, from then on, everything they said was just as important as what they did. One of the E.I.S.'s core principles is that a pandemic is a communications emergency as much as a medical crisis. Members of the public entering the hospital, Riedo told his staff, must be asked if they had travelled out of the country; if someone had respiratory trouble, staff needed to collect as much information as possible about the patient's recent interactions with other people, including where they had taken place. You never know, Riedo explained, which chance encounter will shape a catastrophe. There are so many terrifying possibilities in a pandemic; information brings relief.

A national shortage of diagnostic kits for the new coronavirus meant that only people who had recently visited China were eligible for testing. Even as EvergreenHealth's beds began filling with cases of flulike symptoms—including a patient from Life Care, a nursing home two miles away—the hospital's doctors were unable to test them for the new disease, because none of the sufferers had been to China or been in contact with anyone who had. For nearly a month, as the hospital's patients complained of aches, fevers, and breathing problems—and exhibited symptoms associated with COVID-19, such as "glassy" patches in X-rays of their lungs—none of them were evaluated for the disease. Riedo wanted to start warning people that evidence of an outbreak was growing, but he had only suspicions, not facts.

At the end of February, the C.D.C. began allowing the testing of patients with unexplained respiratory-tract infections or "fever and/or symptoms of acute respiratory illness." Riedo called a friend—an E.I.S. alum at the local department of health. If he sent her swabs from two patients who had needed ventilators but had tested negative for influenza and other common respiratory diseases, would she test them for COVID-19? At that point, there had been only sixteen detections of the coronavirus in the U.S., and only the one in

Seattle's approach to COVID-19 mirrored E.I.S.'s guidelines. New York's did not.

PHOTOGRAPHS (FROM TOP TO BOTTOM): RANTA IMAGES / GETTY; GETTY

ILLUSTRATION BY JAVIER JAÉN

Washington State. "I can't remember why we picked those two patients," Riedo told me. "I was sure they'd be negative. But we thought it would be good to start collecting data, and it was a way to make sure the testing lab was working." The health official told him to send the samples to her lab.

Riedo remembered that other local researchers had been conducting a project called the Seattle Flu Study. For months, they had collected nasal swabs from volunteers, to better understand how influenza spread through the community. During the previous few weeks, the researchers, in quiet violation of C.D.C. guidance, had jury-rigged a coronavirus test in their lab and had started using it on their samples. They had just found a positive hit: a high-school student in a suburb twenty-eight miles from Seattle, with no recent history of foreign travel and no known interactions with anyone from China. The boy wasn't seriously ill; if the researchers hadn't done the test, the infection probably never would have been detected. The genetic sequence of the boy's virus was unnervingly similar to that of the man with the first known case, even though the researchers couldn't find any connections between them. The frightening implication was that the coronavirus was already so widespread that contagion was passing invisibly among community members.

At seven-forty that evening, Riedo got a call from his friend at the public-health lab. Both of the samples he had sent were positive. Riedo sent over swabs from nine other EvergreenHealth patients. Eight were positive. Riedo grabbed the patients' charts and saw that seven of them had come from the Life Care nursing home. It didn't make any sense: nursing-home residents don't travel, and interact mainly with just family members and staff.

Riedo sent in more samples. Most of the patients tested positive, including a woman who had been told that she had pneumonia, another woman who had complained of sweating and clammy hands, and a man in his fifties with serious respiratory problems. For three days, dozens of that man's family members had sat at his bedside in the hospital, coming in and out of the building and going from home to work, visiting restaurants and shaking people's hands, inadvertently exposing themselves and others to COVID-19.

At that moment, there were no known U.S. coronavirus fatalities. Schools, restaurants, and workplaces were open. Stock markets were near all-time highs. But when Riedo stopped to calculate how many of his hospital employees had been exposed to the coronavirus he had to quit when his list surpassed two hundred people. "If we sent all of those workers home for two weeks, which is what the C.D.C. was recommending, we'd have to shut down the entire hospital," he told me. He felt like a man who, having casually swatted at a buzzing insect, suddenly realized that he was beneath a beehive.

The next day, the man with all the family visitors died. It was America's first known COVID-19 death. Riedo called his wife. "I told her I didn't know when I would be coming home," he said to me. "And then I started e-mailing everyone I knew to say we were past containment. It had already escaped."

Epidemiology is a science of possibilities and persuasion, not of certainties or hard proof. "Being approximately right most of the time is better than being precisely right occasionally," the Scottish epidemiologist John Cowden wrote, in 2010. "You can only be sure when to act in retrospect." Epidemiologists must persuade people to upend their lives—to forgo travel and socializing, to submit themselves to blood draws and immunization shots—even when there's scant evidence that they're directly at risk.

Epidemiologists also must learn how to maintain their persuasiveness even as their advice shifts. The recommendations that public-health professionals make at the beginning of an emergency—there's no need to wear masks; children can't become seriously ill—often change as hypotheses are disproved, new experiments occur, and a virus mutates. The C.D.C.'s *Field Epidemiology Manual*, which devotes an entire chapter to communication during a health emergency, indicates that there should be a lead spokesperson whom the public gets to know—familiarity breeds trust. The spokesperson should have a "Single Overriding Health Communication Objective, or SOHCO (pronounced sock-O)," which should be repeated at the beginning and the end of any communication with the public. After the opening SOHCO, the spokesperson should "acknowledge concerns and express understanding of how those affected by the illnesses or injuries are probably feeling." Such a gesture of empathy establishes common ground with scared and dubious citizens—who, because of their mistrust, can be at the highest risk for transmission. The spokesperson should make special efforts to explain both what is known and what is unknown. Transparency is essential, the field manual says, and officials must "not over-reassure or overpromise."

The lead spokesperson should be a scientist. Dr. Richard Besser, a former acting C.D.C. director and an E.I.S. alumnus, explained to me, "If you have a politician on the stage, there's a very real risk that half the nation is going to do the opposite of what they say." During the H1N1 outbreak of 2009—which caused some twelve thousand American deaths, infections in every state, and seven hundred school closings—Besser and his successor at the C.D.C., Dr. Tom Frieden, gave more than a hundred press briefings. President Barack Obama spoke publicly about the outbreak only a few times, and generally limited himself to telling people to heed scientific experts and promising not to let politics distort the government's response. "The Bush Administration did a good job of creating the infrastructure so that we can respond," Obama said at the start of the pandemic, and then echoed the SOHCO by urging families, "Wash your hands when you shake hands. Cover your mouth when you cough. I know it sounds trivial, but it makes a huge difference." At no time did Obama recommend particular medical treatments, nor did he forecast specifics about when the pandemic would end.

Whereas the C.D.C. protocol encourages politicians to practice restraint, it invites the lead scientific spokesperson to demonstrate his or her advice ostentatiously, and to be a living example of the importance of, say, wearing a mask or getting a shot. When polio inoculations began, in the nineteen-fifties, many people worried that they were unsafe, so New York City's commissioner of

health—who happened to be married to the E.I.S.'s founder—invited reporters to watch schoolchildren getting injections. She also enlisted Elvis to publicly get his shot.

E.I.S. personnel in the field have carried boxes of masks and gloves to distribute to pilots, flight attendants, journalists, and health workers—supplies that may not be needed by the recipients but emphasize how important universal compliance is. When Besser gave briefings during the H1N1 pandemic, he sometimes started by describing how he had recently soaped up his fingers, or pointedly waited until everyone was away from the microphone before taking the stage. At the time, there was almost no chance that Besser and his colleagues were at immediate risk of contracting H1N1. "To maintain trust, you have to be as honest as possible, and make damn sure that everyone walks the walk," Besser told me. "If we order people to wear masks, then *every* C.D.C. official must wear a mask in public. If we order hand washing, then we let the cameras see us washing our hands. We're trying to do something nearly impossible, which is get people to take an outbreak seriously when, for most Americans, they don't know anyone who's sick and, if the plan works, they'll never meet anyone who's sick."

Public-health officials say that American culture poses special challenges. Our freedoms to assemble, to speak our minds, to ignore good advice, and to second-guess authority can facilitate the spread of a virus. "We're not China—we can't order people to stay inside," Besser said. "Democracy is a great thing, but it means, for something like COVID-19, we have to persuade people to coöperate if we want to save their lives."

On February 28th, around the time that Riedo learned of the COVID-19 cluster at the Life Care nursing home, the news was also relayed to another E.I.S. alum, Dr. Jeff Duchin, the top public-health physician for Seattle and surrounding King County. To Duchin, the cluster suggested that there was already an area-wide outbreak. He told Dow Constantine, the King County Executive, that it was time to start considering restrictions on public gatherings and telling residents to stay home. This advice struck Constantine as possibly crazy. There were only two dozen COVID-19 diagnoses in the entire nation. Life looked normal. How could people be persuaded to stop going to bars, much less to work, just because a handful of old people were sick?

Constantine told me, "Jeff recognized what he was asking for was impractical. He said if we advised social distancing right away there would be zero acceptance. And so the question was: What can we say *today* so that people will be ready to hear what we need to say *tomorrow*?" In e-mails and phone calls, the men began playing a game: What was the most extreme advice they could give that people wouldn't scoff at? Considering what would likely be happening four days from then, what would they regret not having said?

Even for public-health professionals, the trade-offs were painful to contemplate. At a meeting of public-health supervisors and E.I.S. officials in Seattle, an analyst became emotional when describing the likely consequences of shutting Seattle's schools. Thousands of kids relied on schools for breakfast and lunch, or received medicine like insulin from school nurses. If schools closed, some of those students would likely go hungry; others might get sick, or even die. Everyone also knew that, if the city shut down, domestic-violence incidents would rise. And what about the medical providers who would have to stop working, because they had to stay home with young kids? "It was overwhelming," one E.I.S. official told me. "Every single decision had a million ripples."

Yet the burdens caused by closing the schools could make an enormous difference in curtailing the spread of the virus: all kinds of parents would *have* to stay home. In 2019, Seattle had closed schools for five days after a series of snowstorms. Afterward, the Seattle Flu Study discovered that traffic in some areas had nearly disappeared, public-transit use had tumbled, and the transmission of influenza had dropped.

Constantine thought that announcing school closings was a potent communication strategy for reaching even people who weren't parents, because it forced the community to see the coronavirus crisis in a different light. "We're accustomed to schools closing when something really serious happens," Constantine told me. "It was a way to speed up people's perceptions—to send a message they could understand."

While the logistics of classroom closures were being worked out, Constantine contacted Brad Smith, the president of Microsoft—which is headquartered in Redmond, east of Seattle—and asked him to consider ordering employees to work from home. "Microsoft is a big deal here," Constantine told me. "I thought if they told everyone to stay home it could shift how the state was thinking—make the pandemic real." Microsoft, as a tech company, was poised to switch quickly to remote work, and could demonstrate to other businesses that the transition could occur smoothly. On March 4th, with only twelve known COVID-19 fatalities across the nation and no diagnoses among Microsoft workers, the company told employees to stay home if they could. Smith told me, "King County has a strong reputation for excellent public-health experts, and the worst thing we could have done is substitute our judgment for the expertise of people who have devoted their lives to serving the public." Amazon, which is also headquartered in the area, told many of its local employees to work from home as well. "That's a hundred thousand people suddenly staying home," one Seattle resident told me. "From commute traffic alone, you knew something big had happened."

On February 29th, Constantine held a press conference. He had asked Riedo, Duchin, and Kathy Lofy—another E.I.S. alum and the state's top health officer—to play prominent roles. Duchin spoke first, and it was as if he had prepared his remarks with the *Field Epidemiology Manual* in hand. "I want to just start by expressing our deep and sincere condolences to the family members and loved ones of the person who died," he said. He explained what scientists knew and did not know about the coronavirus, and noted, "We're in the beginning stages of our investigation, and new details and information will emerge over the next days and weeks." He predicted that "telecommuting" was likely to become mandatory for many residents, and repeated several times an easy-to-remember SOHCO: "more hand washing, less face touching." Duchin told me that his words

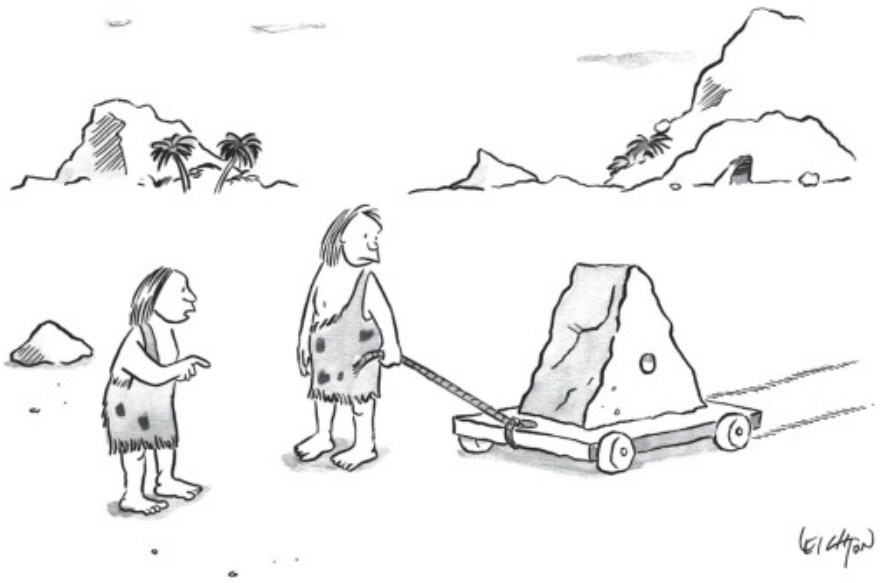
had been chosen carefully: "You have to think about managing the public's emotions, perceptions, trust. You have to bring them along the path with you." Since then, Washington State politicians have largely ceded health communications to the scientists, making them unlikely celebrities. "Hey people!! Jeff Duchin is the real deal," one fan tweeted. A newspaper hailed him as "a bespectacled, calming presence."

Constantine told me that he understands why politicians "want to be front and center and take the credit." And he noted that Seattle has many of "the same problems here you see in Congress, with the partisanship and toxicity." But, he said, "everyone, Republicans and Democrats, came together behind one message and agreed to let the scientists take the lead."

By the time Seattle's schools were formally closed, on March 11th, students and teachers were already abandoning their classrooms. The messaging had worked: parents were voluntarily keeping their kids home. Cell-phone tracking data showed that, in the preceding week, the number of people going to work had dropped by a quarter. Within days, even before Washington's governor, Jay Inslee, issued official work-from-home orders, almost half of Seattle's workers were voluntarily staying away from their offices. When bars and restaurants were officially closed, on March 15th, many of them were already empty. Constantine himself had been working from home for a week. He was giving interviews all day, and always underscored to reporters that he was speaking from his bedroom, and that the noises in the background were coming from his children, who were home from school. After he heard that the county's basketball courts were still being heavily used, he ordered them closed.

The county had bought a motel to house homeless residents who tested positive for the coronavirus. When one homeless man at the motel, who was asymptomatic, left to buy a beer, Constantine immediately went to court, so that police could arrest him the next time he went out. The man's actions had posed little risk: he had gone to a gas station across the street, then returned. But, Constantine told me, "the fact is some people are not going to follow the rules—and we need to show everyone there are consequences."

Today, Washington State has less than two per cent of coronavirus cases in the U.S. At EvergreenHealth, hospital administrators have stopped daily crisis meetings, because the rate of incoming patients has slowed. They have empty beds and extra ventilators. The administrators remain worried, but are cautiously optimistic. "It feels like we might have stopped the tsunami before it hit," Riedo told me. "I don't want to tempt fate, but it seems like it's working. Which is what makes it so much harder when I look at places like New York."



"Tell me about that thing under it."

• • •

The Epidemic Intelligence Service was founded in 1951, when American troops in Korea began experiencing fevers, aches, vomiting, and fatal hemorrhages. Some three thousand soldiers fell ill, leading military leaders to conclude that Chinese-backed Communists had weaponized bacteria. "The planning of appropriate defensive measures must not be delayed," an epidemiologist at a new federal agency, the Communicable Disease Center, declared. He proposed a new division, named to evoke the Central Intelligence Agency. But when the first class of E.I.S. officers landed in Korea they found that the fevers were not caused by a crafty enemy. Soldiers, it turned out, had been accidentally consuming rodent feces. In later conflicts, generals were instructed to use thicker food-storage bags and to set more rat traps.

E.I.S. officers became known as "disease detectives." In 1952, one of them studied a group of children in a Chicago slum who had all developed similar symptoms—muscle weakness, spasms, joint pain—but had tested negative for likely diseases. When the E.I.S. officer visited one of the children's homes, he noticed a toddler chewing on chips of paint that had flaked off a windowsill. The paint chips were soft because they contained lead, which is toxic. A year later, that E.I.S. officer helped found the country's first poison-control program, which taught parents that the first principle of safety was communication. The program advised parents to tell their children not to put paint chips in their mouths, and to signal the dangers of bleach, insecticide, and cleaning chemicals by storing them on high shelves.

E.I.S. alumni went on to take powerful health-care jobs across the country. "Nearly ninety per cent of E.I.S. graduates embark on public-health careers at the local, state, federal or international level," a 2001 study found. Four former C.D.C. directors are E.I.S. alumni; half a dozen graduates have served as the U.S. Surgeon General.

When the coronavirus pandemic started, E.I.S. alumni began working

non-stop, with some setting up cots inside their offices. While the virus remained overseas, the C.D.C. led communications, scrupulously following E.I.S. protocols. But soon after the coronavirus landed on American shores the White House took over. E.I.S. officers were dismayed to see the communication principles that the C.D.C. had honed over the years being disregarded, and sometimes turned on their head. A Coronavirus Task Force, led by Vice-President Mike Pence, was formed, excluding everyone from the C.D.C. except its director, Dr. Robert Redfield. "The C.D.C. was ordered into lockdown," a former senior official at the agency told me. "They can't speak to the media. These are people who have trained their entire lives for epidemics—the finest public-health army in history—and they've been told to shut up!"

Since then, the primary spokesperson during the pandemic has been not a scientist but President Donald Trump—a politician notoriously hostile to science. Further complicating matters, Trump has highlighted a rotating cast of supporting characters, including Pence; Dr. Anthony Fauci, from the National Institutes of Health; Dr. Deborah Birx, from the State Department; and the President's son-in-law, Jared Kushner. "When there are so many different figures, it can cause real confusion about whom to listen to, or who's in charge of what," Dr. Tom Inglesby, the director of the Center for Health Security, at Johns Hopkins, said. "And, if the response becomes political, it's a disaster, because people won't know if you are making recommendations based on science or politics, and so there's the risk they'll start to tune out."

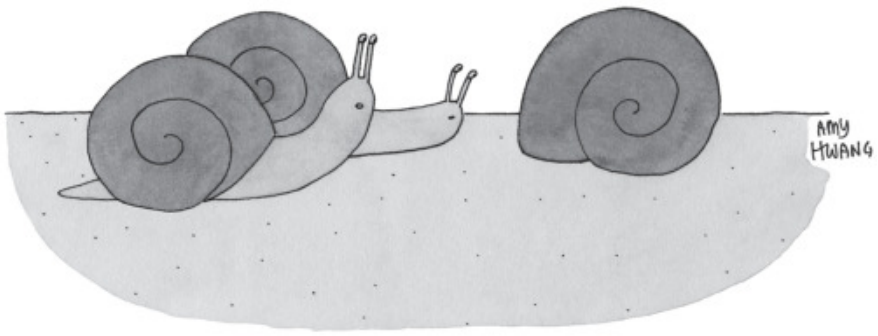
Already, it's clear that some confusion has taken hold. Though the C.D.C. formally recommended, in mid-March, that Americans practice social distancing, governors in five states have refused to order residents to stay home. (One of those states, South Dakota, is now contending with a major outbreak.) Federal leaders have given shifting advice—initially, Americans were told that they did not need to wear masks in public, but on April 3rd, at a White House press briefing, masks were recommended—and this has risked undermining public confidence. Trump announced the change by saying, "You don't have to do it. *I'm* choosing not to do it." Had the C.D.C. been in charge of communicating about masks, the agency surely would have used the change in guidance as a teaching opportunity, explaining that scientists had come to understand that people infected with the coronavirus can be contagious but asymptomatic for longer than originally thought—which means that we need to be more careful when we cough, even if we feel healthy or just have seasonal allergies. Trump's daily briefings, however, are chaotic and contradictory. Within the span of a few days, Trump threatened to quarantine New York City, then reversed himself; soon after declaring that he intended to "reopen" the U.S. economy within two weeks, he called for thirty additional days of social distancing. Such inconstancy from a leader is distracting in the best of times. It is dangerous in a pandemic. "Right now, everyone is so confused by all the conflicting messages that, each time the guidance evolves, fewer and fewer people might follow it," Besser, the former C.D.C. director, said. "We're going *backward* in our sophistication."

Morale at the C.D.C. has plummeted. "For all the responses that I was involved in, there was always this feeling of camaraderie, that you were part of something bigger than yourself," another former high-ranking C.D.C. official told me. "Now everyone I talk to is so dispirited. They're working sixteen-hour days, but they feel ignored. I've never seen so many people so frustrated and upset and sad. We could have saved so many more lives. We have the best public-health agency in the world, and we know how to persuade people to do what they need to do. Instead, we're ignoring everything we've learned over the last century."

The initial coronavirus outbreaks in New York City emerged at roughly the same time as those in Seattle. But the cities' experiences with the disease have markedly differed. By the second week of April, Washington State had roughly one recorded fatality per fourteen thousand residents. New York's rate of death was nearly six times higher.

There are many explanations for this divergence. New York is denser than Seattle and relies more heavily on public transportation, which forces commuters into close contact. In Seattle, efforts at social distancing may have been aided by local attitudes—newcomers are warned of the Seattle Freeze, which one local columnist compared to the popular girl in high school who "always smiles and says hello" but "doesn't know your name and doesn't care to." New Yorkers are in your face, whether you like it or not. ("Stand back at least six feet, playa," a sign in the window of a Bronx bodega cautioned. "COVID-19 is some real shit!") New York also has more poverty and inequality than Seattle, and more international travellers. Moreover, as Mike Famulare, a senior research scientist at the Institute for Disease Modeling, put it to me, "There's always some element of good luck and bad luck in a pandemic."

It's also true, however, that the cities' leaders acted and communicated very differently in the early stages of the pandemic. Seattle's leaders moved fast



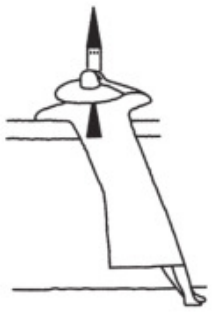
"Of course he's home. He's a snail."

to persuade people to stay home and follow the scientists' advice; New York's leaders, despite having a highly esteemed public-health department, moved more slowly, offered more muddied messages, and let politicians' voices dominate.

New York's mayor, Bill de Blasio, has long had a fraught relationship with the city's Department of Health and Mental Hygiene, which, though technically under his control, seeks to function independently and avoid political fights. "There's always a bit of a split between the political appointees, whose jobs are to make a mayor look good, and public-health professionals, who sometimes have to make unpopular recommendations," a former head of the Department of Health told me. "But, with the de Blasio people, that antagonism is ten times worse. They are so much more impossible to work with than other administrations." In 2015, when Legionnaires' disease sickened at least a hundred and thirty New Yorkers and killed at least twelve, tensions between de Blasio and the Health Department came to a head. After de Blasio ordered health officials to force their way into buildings in the Bronx to test cooling towers for contamination, even though the outbreak's source had already been identified, the officials complained that the Mayor was wasting their time in order to brag to reporters that he'd done everything possible to stamp out the disease. When the deputy commissioner for environmental health, Daniel Kass, refused City Hall's demands, one of the city's deputy mayors urged the commissioner of health, Mary Bassett, to fire Kass. She ignored the suggestion, but Kass eventually resigned. He later told colleagues he felt that his rebellion had made coöperation with City Hall impossible.

"Dan Kass is one of the best environmental-health experts in the country," Bassett, who now teaches at Harvard, said. "New York has one of the best health departments in the United States, possibly the world. We'd all be better off if we were listening really closely to them right now."

In early March, as Dow Constantine was asking Microsoft to close its offices and putting scientists in front of news cameras, de Blasio and New York's governor, Andrew Cuomo, were giving speeches that deëmphasized the risks of the pandemic, even as the city was announcing its first official cases. De Blasio initially voiced caution, saying that "no one should take the coronavirus situation lightly," but soon told residents to keep helping the city's economy. "Go on with your lives + get out on the town despite Coronavirus," he tweeted on March 2nd—one day after the first COVID-19 diagnosis in New York. He urged people to see a movie at Lincoln Center. On the day that Seattle schools closed, de Blasio said at a press conference that "if you are not sick, if you are not in the vulnerable category, you should be going about your life." Cuomo, meanwhile, had told reporters that "we should relax." He said that most infected people would recover with few problems, adding, "We don't even think it's going to be as bad as it was in other countries."



De Blasio's and Cuomo's instincts are understandable. A political leader's job, in most situations, is to ease citizens' fears and buoy the economy. During a pandemic, however, all those imperatives are reversed: a politician's job is to *inflame* our paranoia, because waiting until we can see the danger means holding off until it's too late. The city's epidemiologists were horrified by the comforting messages that de Blasio and Cuomo kept giving. Jeffrey Shaman, a disease modeller at Columbia, said, "All you had to do was look at the West Coast, and you knew it was coming for us. That's why Seattle and San Francisco and Portland were shutting things down." But New York "dithered instead of telling people to stay home."

By early March, the city's Department of Health had sent the Mayor numerous proposals on fighting the virus's spread. Since there weren't enough diagnostic kits to conduct extensive testing, public-health officials proposed "sentinel surveillance": asking local hospitals to provide the Department of Health with swabs collected from people who had flulike symptoms and had tested negative for influenza. By testing a selection of those swabs, the department could estimate how rapidly and widely the coronavirus was moving through the city. In previous outbreaks, such studies had been tremendously useful in guiding governmental responses—and this spring Los Angeles effectively deployed the strategy, as did Santa Clara County, in California, and the state of Hawaii.

In New York City, the Health Department began collecting swabs, but the initiative met swift resistance. Under federal health laws, such swabs have to be anonymized for patients who haven't consented to a coronavirus test. This meant that, even if city officials learned that many people were infected, officials wouldn't be able to identify, let alone warn, any of them. The Mayor's office refused to authorize testing the swabs. "They didn't want to have to say, 'There are hundreds, maybe thousands, of you who are positive for coronavirus, but we don't know who,'" a Department of Health official told me, adding, "It was a real opportunity to communicate to New Yorkers that this is serious—you *have* to stay home." The effort was blocked over fears that it might create a panic, but such alarm might have proved useful. After all, the official told me, panic is pretty effective at getting people to change their behavior. Instead, the Mayor's office informed the Health Department that the city would sponsor a job fair to find a few new "disease detectives." That event was held on March 12th, in Long Island City. The Department of Health official said, "We're in the middle of a catastrophe, and their solution is to make us waste time interviewing and onboarding people!" (The Mayor's office eventually relented on the sentinel-surveillance samples, and testing began on March 23rd—almost a month after samples were first collected. By then, the outbreak was well under way.)

As New York City schools, bars, and restaurants remained open, relations between the Department of Health and City Hall devolved. Health supervisors were "very, very angry," one official told me. In particular, health officials were furious that de Blasio kept telling New Yorkers to go out and get a test if they suspected they were infected. On March 4th, he tweeted, "If you feel flulike symptoms (fever, cough and shortness of breath), and recently traveled to an area affected by coronavirus . . . go to

your doctor." This was the opposite of what city health supervisors were advising: people needed to stay inside and call their doctor if they felt sick. Making trips to doctors' offices or emergency rooms only increased the odds that the virus would spread, and the city's limited supply of tests needed to be saved for people with life-threatening conditions. De Blasio's staff, however, had started micromanaging the department's communications, including on Twitter. Finally, on March 15th, the Department of Health was allowed to post a thread: "If you are sick, STAY HOME. If you do not feel better in 3 to 4 days, consult with your health care provider"; "Testing should only be used for people who need to be hospitalized"; "Everyone in NYC should act as if they have been exposed to coronavirus. . . . New Yorkers who are not sick should also stay home as much as possible." One City Council member told me that health officials "had been trying to say that publicly for weeks, but this mayor refuses to trust the experts—it's mind-boggling."

As the city's scientists offered plans for more aggressive action and provided data showing that time was running out, the Mayor's staff responded that the health officials were politically naïve. At one point, Dr. Marcelle Layton, the city's assistant commissioner of communicable diseases, and an E.I.S. alum who is revered by health officials across the nation for her inventiveness and dedication, was ordered to City Hall, in case she was needed to help the Mayor answer questions from the press. She sat on a bench in a hallway for three hours, away from her team, while politicians spoke to the media. (Layton declined interview requests.) At press conferences, Layton and other physicians played minimal roles while de Blasio and Cuomo, longtime rivals, each attempted to take center stage. The two men even began publicly feuding—arguing in the press, and through aides, about who had authority over schools and workplace closures.

Eventually, three of the top leaders of the city's Department of Health met with de Blasio and demanded that he quickly instate social-distancing rules and begin sending clear messages to the public to stay indoors. Layton and a deputy health commissioner, Dr. Demetre Daskalakis, indicated to de Blasio's staff that if the Mayor didn't act promptly they would resign. (The next day, Layton's staff greeted her with applause, and at least one employee offered to give her some money if she had to make good on the ultimatum.) De Blasio was in a corner: he had long positioned himself as a champion of the underclass, and closing schools would disproportionately hurt the poor and vulnerable. What's more, unions representing health-care workers had threatened that nurses, orderlies, and others might stay home unless there was a plan to provide child care.

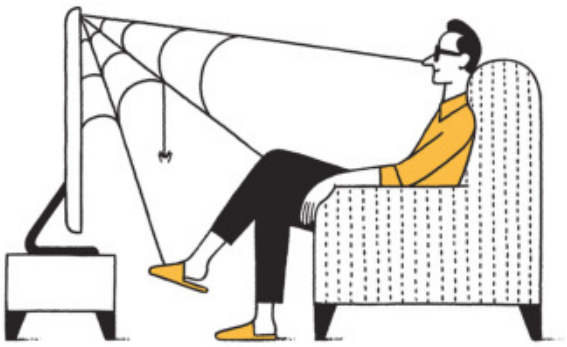
Nevertheless, de Blasio finally acceded to the health officials' demands. On March 16th, after a compromise was reached with the health-care unions, city schools were closed, and Cuomo ordered all gyms and similar facilities to shut down. The messaging remained jumbled, however. Right before the gym closure was set to take effect, de Blasio asked his driver to take him to the Y.M.C.A. in Park Slope, near his old home, for a final workout. Even de Blasio's allies were outraged. A former adviser tweeted, "The mayor's actions today are inexcusable and reckless." Another former consultant tweeted that the gym visit was "Pathetic. Self-involved. Inexcusable."

De Blasio and Cuomo kept bickering. On March 17th, de Blasio told residents to "be prepared right now for the possibility of a shelter-in-place order." The same day, Cuomo told a reporter, "There's not going to be any 'you must stay in your house' rule." Cuomo's staff quietly told reporters that de Blasio was acting "psychotic." Three days later, though, Cuomo announced an executive order putting the state on "pause"—which was essentially indistinguishable from stay-at-home orders issued by cities in Washington State, California, and elsewhere. (A spokesperson for de Blasio said that City Hall's "messaging changed as the situation and the science changed" and that there was "no dithering." A spokesperson for Cuomo said that "the Governor communicated clearly the seriousness of this pandemic" and that "the Governor has been laser focused on communicating his actions in a way that doesn't scare people.")

To a certain extent, de Blasio's and Cuomo's tortured delays make sense. Good politicians should worry about poor children missing school just as much as they worry about the threat of an emerging disease. "That's why E.I.S. training is so important," Sonja Rasmussen, a former C.D.C. official, told me. In a pandemic, "the old ways of thinking get flipped around." She added, "You have to make the kinds of choices that, if you aren't trained for them, are really hard to make. And there's no time to learn from your mistakes."

Today, New York City has the same social-distancing policies and business-closure rules as Seattle. But because New York's recommendations came later than Seattle's—and because communication was less consistent—it took longer to influence how people behaved. According to data collected by Google from cell phones, nearly a quarter of Seattleites were avoiding their workplaces by March 6th. In New York City, another week passed until an equivalent percentage did the same. Tom Frieden, the former C.D.C. director, has estimated that, if New York had started implementing stay-at-home orders ten days earlier than it did, it might have reduced COVID-19 deaths by fifty to eighty per cent. Another former New York City health commissioner told me that "de Blasio was just horrible," adding, "Maybe it was unintentional, maybe it was his arrogance. But, if you tell people to stay home and then you go to the gym, you can't really be surprised when people keep going outside."

More than fifteen thousand people in New York are believed to have died from COVID-19. Last week in Washington State, the estimate was fewer than seven hundred people. New Yorkers now hear constant ambulance sirens, which remind them of the invisible viral threat; residents are currently staying home at even higher rates than in Seattle. And de Blasio and Cuomo—even as they continue to squabble over, say, who gets to reopen schools—have become more forceful in their warnings. Rasmussen said, "It seems silly, but all these rules and SOHCOs and telling people again and again to wash their hands—they make a huge difference. That's why we study it and teach it." She continued, "It's really easy, with the best of intentions, to say the wrong thing or send the wrong message. And then more people die." ♦



WHAT TO WATCH DURING THE LOCKDOWN: MONTH 38

BY NICK HORNBY

"BOILED HAM AND PARSNIPS" When *Sight & Sound* reviewed the film on its release, in 1972, it conceded that Kasimir Kaschomski's five-hour black-and-white account of a Ukrainian peasant woman's struggle to prepare the eponymous meal "might not be for everyone," but we're long past that. The film, presented in four chapters, titled "Walk to the Market," "The Haggle," "The Walk Home Again," and "The Preparation of the Ham," culminates in scum-flecked bubbles in the pan, which exert a weirdly hypnotic hold on the viewer. Ulnyano Melnik had never appeared before a camera until "Boiled Ham," and she never appeared before one again. But you'll believe every step of the two-hour walk, and every obstinate syllable of the haggle. She's not in the kitchen scenes much; Kaschomski lets the ham take center stage, a breathtaking piece of cinematic bravery that pays off. Try not to binge! My family and I made this last for two nights. (*Five hours and twenty-one minutes. Netflix Ukraine—you can change the settings on your account.*)

MACON McCALMAN RETROSPECTIVE You are, I'm guessing, unfamiliar with the work of Macon McCalman, who died in 2005, with a hundred and fifteen movie and television credits to his name. I was unfamiliar with it, too, until I picked a random film on IMDb ("Smokey and the Bandit") and a random character (Mr. B.), and set out to watch every single McCalman performance I could find. Some of them are hard to come by, certainly, and, if anyone has access to the 1977 TV series "Carter County," I'm looking for the episode titled, with an ominous inelegance, "By the Light of the Moonlight," in which McCalman plays Drunk. But he was Goodspeed in an episode of "Wonder Woman," Dr. Harry Capello in "Hart to Hart," and Ned Avery in "Barnaby Jones." Chances are, if you watched TV in the seventies or the eighties, you ignored him—up to now. He had the enviable ability to play different characters in the same series without anyone noticing: he was both Dolph Masterson *and* Kibbee in "Lou Grant," Mark Duncan *and* Wendall Glendale in "Maude" (both episodes filmed in 1977), Dr. Kalsa *and* George Endicott in "Diff'rent Strokes." The pandemic gives us a chance to celebrate his work. There was so much of it that you'll be watching forever, unless you shoot yourself first. (*Eighty-one hours, approx. Mostly YouTube, but check any old VHS tapes you have in the garage.*)

1997 NATIVITY PLAY, ST. SWITHIN'S SCHOOL You've seen "Downton Abbey" three times. You've even seen the movie. You've watched "Poldark," "The Forsyte Saga," "Grantchester," "Victoria," "Upstairs, Downstairs," and everything Jane Austen so much as thought about writing. Where to go for your posh Brit fix? Try this nativity play put on by the exclusive St. Swithin's primary school, in southwest London, filmed on a shaky but passable camcorder by a proud front-row parent. Harry Smith-Walker plays Joseph with youthful enthusiasm, although he tends to shout his lines, and his reaction to the flatulence of a Wise Man does break the fourth wall momentarily. St. Swithin's didn't accept girls until 2002, so Nigel Parker-Lawrence plays Mary, with a rather winning modesty, although, as was true in so many pre-twenty-first-century productions, the part is underwritten, and Mary the woman is obscured by Mary the mother. Politics buffs will be excited to know that Smith-Walker is now a Junior Minister for Work and Pensions in Boris Johnson's Cabinet. (*Twenty-one minutes. YouTube.*)

DARLINGTON V. GAINSBOROUGH TRINITY, OCTOBER, 2016 You've probably seen every highlights package in every field of sporting endeavor by now, so why not watch full games between teams you've never heard of? Darlington, from County Durham, is in the sixth division of English football; Gainsborough Trinity is from Lincolnshire. Their clash a few years back was uploaded to YouTube, where it has been viewed by eighteen hundred people. Prepare for the match by finding out a little bit about the history of the two clubs—Darlington formed in 1883 and turned pro in 1908, and very little has happened to the team since. Gainsborough Trinity, ten years older than Darlington, was originally called Trinity Recreationists. It reached the giddy heights of the English second division in 1896, but it's been mostly downhill ever since. Jordan Adebayo-Smith, a nineteen-year-old born in California, is on loan to Gainsborough from Lincoln City, so Americans can keep an eye on one of their own. (*Two hours and seven minutes, including a blank screen during halftime. YouTube.*)

"CATS" Cats was widely derided at the time of its release, in 2019, but, if you have literally seen everything else on every streaming service, then perhaps it's worth . . . Actually, I hate this job, and I quit. Read "Ulysses" or the Bible. Talk to your family. Try to make a replica of the old Ebbets Field out of used chewing gum. There will be a vaccine soon. ♦

LUCI GUTIÉRREZ

CORONAVIRUS CHRONICLES

AFTER THE STORM

The pandemic has revealed dire flaws in American medicine. Can we fix them?

BY SIDDHARTHA MUKHERJEE

At 4:18 A.M. on February 1, 1997, a fire broke out in the Aisin Seiki company's Factory No. 1, in Kariya, a hundred and sixty miles southwest of Tokyo. Soon, flames had engulfed the plant and incinerated the production line that made a part called a P-valve—a device used in vehicles to modulate brake pressure and prevent skidding. The valve was small and cheap—about the size of a fist, and roughly ten dollars apiece—but indispensable. The Aisin factory normally produced almost thirty-three thousand valves a day, and was, at the time, the exclusive supplier of the part for the Toyota Motor Corporation.

Within hours, the magnitude of the loss was evident to Toyota. The company had adopted "just in time" (J.I.T.) production: parts, such as P-valves, were produced according to immediate needs—to precisely match the number of vehicles ready for assembly—rather than sitting around in stockpiles. But the fire had now put the whole enterprise at risk: with no inventory in the warehouse, there were only enough valves to last a single day. The production of all Toyota vehicles was about to grind to a halt. "Such is the fragility of JIT: a surprise event can paralyze entire networks and even industries," the management scholars Toshihiro Nishiguchi and Alexandre Beaudet observed the following year, in a case study of the episode.

Toyota's response was extraordinary: by six-thirty that morning, while the factory was still smoldering, executives huddled to organize the production of P-valves at other factories. It was a "war room," one official recalled. The next day, a Sunday, small and large factories, some with no direct connection to Toyota, or even to the automotive industry, received detailed instructions for manufacturing the P-valves. By February 4th, three days after the fire, many of these factories had repurposed their machines to make the valves. Brother Industries, a Japanese company best known for its sewing machines and typewriters, adapted a computerized milling device that made typewriter parts to start making P-valves. The ad-hoc work-around was inefficient—it took fifteen minutes to complete each valve, its general manager admitted—but the country's largest company was in trouble, and so the crisis had become a test of national solidarity. All in all, Toyota lost some seventy thousand vehicles—an astonishingly small number, given the millions of orders it fulfilled that year. By the end of the week, it had increased shifts and lengthened hours. Within the month, the company had rebounded.

Every enterprise learns its strengths and weaknesses from an Aisin-fire moment—from a disaster that spirals out of control. What those of us in the medical profession have learned from the COVID-19 crisis has been dismaying, and on several fronts. Medicine isn't a doctor with a black bag, after all; it's a complex web of systems and processes. It is a health-care delivery system—providing antibiotics to a child with strep throat or a new kidney to a patient with renal failure. It is a research program, guiding discoveries from the lab bench to the bedside. It is a set of protocols for quality control—from clinical-practice guidelines to drug and device approvals. And it is a forum for exchanging information, allowing for continuous improvement in patient care. In each arena, the pandemic has revealed some strengths—including frank heroism and ingenuity—but it has also exposed hidden fractures, silent aneurysms, points of fragility. Systems that we thought were homeostatic—self-regulating, self-correcting, like a human body in

Efficiency at the cost of resilience is like a silent aneurysm waiting to rupture.

ILLUSTRATION BY ALEXANDER GLANDIEN

good health—turned out to be exquisitely sensitive to turbulence, like the body during critical illness. Everyone now asks: When will things get back to normal? But, as a physician and researcher, I fear that the resumption of normality would signal a failure to learn. We need to think not about resumption but about revision.

Start with health care as a delivery system. In this state of emergency, delivering care has required both personal protective equipment (masks, gowns, gloves) for medical personnel and devices (including supplemental oxygen and ventilators) for patients. In the absence of effective drugs, care is mainly supportive. As the pandemic advanced, the delivery of these goods to hospitals and clinics should have been akin to a soldierly deployment, a meticulous, coördinated response—Toyota reassembling a supply chain within a matter of days. Instead, the medical infrastructure of one of the world's wealthiest nations fell apart, like a slapdash house built by one of the three little pigs.

N95 respirators, those heavy-duty face masks with two straps and a metal nose bridge, are a case in point. Before the pandemic, each cost between fifty cents and a dollar or so. They come in various sizes and styles, and every year health-care workers have their size "fit tested," to make sure that air can't get in around the edges. (A puff of aerosolized saccharin might be sprayed near your face; if you can detect the sweetness, the mask isn't fitting properly.) The N95, meant for a single use, is designed to filter particulates as small as 0.3 microns in diameter. In the pre-pandemic world, when I encountered a patient suspected of having influenza or TB, say, I would put one on, and discard it in the biohazard trash after each use.

But mid-crisis, when the need for these masks in hospitals and clinics was most acute, doctors and nurses ran short. An anesthesiologist from New Jersey told me that he was forced to reuse his mask for the whole day: "We get one, per shift, per day." His nursing staff, he said, initially got none. A resident in Boston who worked in an E.R. told me that he had no N95 mask until the end of March; the few that were available were reserved for medical staff performing intubations and bronchoscopies—procedures that can send viral particles airborne, and pose the highest risk of infection. He recalled seeing a patient with symptoms that could have signalled COVID-19: "When I went to examine him, I had a surgical mask"—a simple clothlike cover, leaky at the sides—"and a face shield I had been cleaning and reusing for a month."

We've all heard stories about the absence of masks in hospitals; we know that their production was typically outsourced to suppliers in China, which were buffeted by the very contagion that made these devices so necessary. Meanwhile, the shortage of these mass-manufactured fifty-cent items has imperilled the safety of our medical personnel. The question is: Why? Days after the Aisin fire, a typewriter factory was putting out brake-system components. Why weren't our suppliers responding with the same urgency and resilience?

The story of Mike Bowen, a manufacturer in North Richland Hills, Texas, offers some clues. His company, Prestige Ameritech, which he and his partners started fifteen years ago, is among the country's largest domestic manufacturers of surgical and N95 masks. Because companies that moved manufacturing abroad—including Bowen's old employer, Kimberly-Clark—would undercut him on price, he often had a hard time landing orders. "Hospitals typically don't order masks as individual buyers," he told me. He spoke deliberately, with the slightest Texan drawl. Instead, they negotiate contracts as members of a Group Purchasing Organization—representing hundreds or thousands of hospitals—and, as Bowen explained, the G.P.O. always "chooses the cheapest bid." His business struggled. In 2009, though, preparations were made for the H1N1 influenza pandemic, and Bowen was asked to ramp up his production of face masks to meet the anticipated demand. "We bought the old Kimberly-Clark factory," he recalled. "We outfitted it with new machines. We hired an extra hundred and fifty people. And then, when it ended, the whole thing fell apart. The people that we helped went back to the foreign-made masks. So we had to lay off all of those people." Bowen almost went bankrupt. "Hospitals promised to retain us as suppliers after the flu." But promises are not contracts. "We were just naïve," he said.

Bowen kept thinking about the next pandemic, when the supply of masks from China might plummet and the demand for domestic masks might surge again. He sent letters warning about a potential supply-chain problem to President Obama in 2010, and to President Trump in 2017; he wrote to the Defense Secretary; to hospital-safety associations; to officials at the Centers for Disease Control—hundreds of letters in all. He must have seemed, at times, like an obsessive crank. "I got a form letter from the White House, thanking me for my concerns," he said. "Everybody ignored it."

When COVID-19 hit, China shut down many of its factories, and retained most of its diminished production of masks for its own use. For a while, exports declined to a trickle. Today, Bowen's company has increased its manufacturing almost fourfold, producing at least a million masks a day. But that's only a fraction of the demand; he has had to turn away orders for hundreds of millions a day.

There's another place that hospitals and clinics could have looked to for masks, gloves, and gowns: the Strategic National Stockpile—a repository of emergency equipment that can be deployed on short notice during a crisis. On March 4th, six weeks after the first case of COVID-19 had been reported in America, the S.N.S. announced its intention to buy six hundred million N95 respirators in the next eighteen months. Even if private-sector orders were cancelled when the pandemic subsided, the contracted companies—Honeywell, Dräger, 3M, Moldex, and O&M Halyard—would thus have a guaranteed buyer. But pandemics don't go on hiatus for eighteen months, patiently waiting for medical supplies to accumulate. The day after the S.N.S. announcement, the state of Massachusetts requested seven hundred and fifty thousand N95 masks (and a similar number of surgical gowns and gloves) to protect its doctors and nurses. Two weeks passed—each bringing grim news of viral spread—before the state received a tenth of that number.

When I e-mailed the Strategic National Stockpile, a spokesperson emphasized that the role of the S.N.S. was "to *supplement*"—her emphasis—"state and

local supplies during public-health emergencies," not to fulfill everyone's needs. But how many N95s were there in the stockpile to start with? The answer was thirteen million. New York and California, between them, have about three million health-care workers. If a fifth of that workforce were involved in some contact with virus-infected patients, and if no more than two N95 masks were used per worker each day, the entire S.N.S. supply would last eleven days.

Our delivery mechanisms have also broken down for the people trying to measure and manage the crisis. In this effort, the most important tool is the detection kit. At a population level, detection enables mapmaking: quantifying the size and the sources of an infection and tracking its movements. For an individual patient, it enables plan-making: assessing whether you've been infected and should be isolated, and tracing whom you've put at risk. In the later stages of a pandemic, the ability to test on a wide scale allows agencies to concentrate on hot spots and contain them with limited, local lockdowns.

The C.D.C., which had known about the Wuhan outbreak since December, started making detection kits in January. According to reporting from the Washington *Post*, on February 8th, one of the first C.D.C.-made detection kits for the new coronavirus, freshly approved by the Food and Drug Administration, arrived at a public-health lab in Manhattan; it contained a set of chemicals, or reagents, meant to isolate the virus's genetic material, and a set of three "probes" to amplify the material and then determine whether it was from the coronavirus. Time and again, technicians in New York found, one of the probes—probe N3—registered false positives: even distilled water triggered a positive result.

As the days dragged by, researchers at the C.D.C. tried to rejigger the test and make sure that its results were reliable. (The F.D.A. says that the original design it approved had performed well; the trouble arose when additional lots of the kit were manufactured.) Although the World Health Organization had distributed a quarter of a million tests, manufactured by a German lab and widely used elsewhere, the F.D.A. had authorized only the C.D.C. kit. When labs at American hospitals and elsewhere devised detection assays of their own, the agency prohibited their use until an "Emergency Use Authorization" had been applied for and granted.

The "Emergency Use Authorization" protocol, less demanding than the ordinary approval process, was designed to make the agency nimbler, while preventing people from peddling useless tests, drugs, or devices during an emergency. Yet, for some researchers, it would prove to be a roadblock in itself.

I spoke to Alex Greninger, the assistant director of the virology lab at the University of Washington. It's one of the largest virology labs in the country, and researchers there began developing a test just days after the first case of COVID-19 was detected on American soil—a thirty-five-year-old man who appeared at a clinic in Snohomish County, Washington, on January 19th, coughing and feverish.

Greninger, a square-jawed athletic figure who favors hoodies over suits, didn't blame anyone at the C.D.C. or the F.D.A.; in fact, he told me that he found the officials "extremely responsive and easy to work with." As he described the situation, it was the *process* that failed. For Greninger's team, devising a lab test for the new coronavirus, SARS-CoV-2, wasn't particularly difficult: its genomic sequence was already available, which made it possible to design the right probe for detecting the viral material. Securing samples of that material to validate the test wasn't easy, but Greninger found a way. The next step was getting the F.D.A. to permit its use. He and his colleagues spent almost a hundred hours filling out a baroque, thirty-page form, filing the authorization request on February 19th. Still no dice: he had e-mailed the material, and the F.D.A. insisted that he print it out and mail a hard copy, along with the digital file in physical form, such as a thumb drive or a CD, to a separate "documentation" office. (This requirement was later withdrawn.)

"They worked as efficiently as they could," Greninger said, "but the hard copies probably increased the turnaround by several additional days." (The F.D.A. says that, on the contrary, it reviewed the electronic application immediately.) What gave the matter particular urgency is that the bulk of patient testing is done by commercial clinical labs or academic labs, and the C.D.C. initially distributed its kits only to "C.D.C.-authorized" military and state and county public-health labs, which do a fraction of over-all testing. Meanwhile, the infection spread on flights and in movie theatres and during visits to grandparents, seeding itself in other cities and states: New York, New Jersey, Louisiana, Connecticut. Yet, by the last week of February, only a few hundred tests per day were being performed. On February 28th, Greninger and colleagues sent a letter to Congress, noting, "No test manufacturer or clinical laboratory has successfully navigated the E.U.A. process for SARS-CoV-2 to date."

The next day, the F.D.A. relaxed its position, allowing "high complexity" clinical labs to test for virus infection in advance of agency review and approval. A simplified E.U.A. form was soon made available. Greninger e-mailed me two versions of the E.U.A. application. The original one, from January 19th, was thirty pages and filled with dense boilerplate. "In the first version," Greninger told me, "they suggested the lab test twenty-five positive cases. But when we were looking at this, in mid-February, there were only fourteen confirmed cases in the U.S." This posed a metaphysical question: How can one validate an emergency test before an emergency occurs? The F.D.A. duly worked with the C.D.C. and the N.I.H. to make more viral samples available, lowering the hurdles for test validation without compromising the quality of the test. A later version of the E.U.A. form, from March 7th, was just seven pages. Between February 28th and March 1st, Greninger's team worked around the clock to prepare the virology lab for testing hundreds of patient samples. By Monday, March 2nd, the lab had begun its first tests. A full forty-three days had passed since that COVID-19 patient turned up in Snohomish County.

This is hardly the first time that the F.D.A. has faced the challenge of finding the right balance between safety and speed. In October of 1988, fifteen hundred AIDS protesters from the direct-action group ACT UP arrived at the agency to stage a "takeover." While agency scientists, horrified and confused, peered out of their windows, activists draped banners and put out tombstone-shaped signs. ("RIP: KILLED BY THE F.D.A.") As the

H.I.V./AIDS researcher and activist Mark Harrington recounted, it was part of ACT UP's "Drugs Into Bodies" agenda, propelled by an urgent logic: AIDS was nearly always fatal, and time-consuming precautions seemed the opposite of cautious—patients were being protected to death. The logic sank in. One way that the F.D.A. eventually responded was by developing an "accelerated approval" process. It would permit the use of "surrogate" metrics to judge the success of a medicine; that is, rather than waiting to measure patient survival rate over some period of time, researchers could establish effectiveness simply by documenting a decrease in viral loads, or the recovery of the immune system. Trials became leaner and swifter, expediting the development and approval of the antiviral "cocktail" therapies that are now used to treat patients with H.I.V.

For COVID-19, in turn, the F.D.A. has sought to fast-forward trials by means of its Coronavirus Treatment Acceleration Program, working with developers of treatments and vaccines. Still, the speedier approach has its own pitfalls: it makes it easier for products that are marginally effective—or outright ineffective—to slip into the system. "Drugs Into Bodies" too easily devolves into bad drugs delivered into vulnerable bodies. The same applies to devices and detection assays. A recent fiasco in the U.K. illustrates the point: the government spent twenty million dollars on COVID-19 tests, peddled by two Chinese companies, that proved unreliable.

As Greninger was quick to point out, without some F.D.A. approval process, testing could become a free-for-all. And in the aftermath of the testing debacle we're seeing a pendulum shift toward underregulation. The F.D.A. has allowed more than ninety companies to offer antibody tests meant to determine whether someone has already been infected and possibly acquired immunity. But it has reviewed and authorized only four. In short, the F.D.A. has essentially recused itself from evaluating these tests before they come on the market. Poorly regulated and unreliable tests, could, unfortunately, complicate recovery. Some nations, such as Italy and the U.K., are considering giving return-to-work "immunity passports" to those who have antibodies against the virus. This is a divisive, ethically fraught approach to begin with. Add in diagnostic errors, and it could be a lethal one.

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Tests, drugs, devices, procedures: all these draw on medicine as a research program. Major innovations in clinical care are often driven by scientists working with cell cultures, animal models, and even computational models—work done in vitro, in vivo, in silico. Lifesaving treatments found in I.V. bags and pill bottles generally had their origins in petri dishes and microarrays. Scant the lab research, and a patient will pay the price.

"I am busier than I have ever been," Susan Weiss, a professor of microbiology at the University of Pennsylvania, told me. Instantly recognizable in the long passageways of the lab by her nimbus of curly brown hair, she has spent her career working on coronaviruses. While other labs at the university are under lockdown, hers is now in hyperdrive: she is studying coronavirus proteins and their interaction with the human immune system—a topic she has pursued for forty years. Her work has helped that of other Penn scientists, including the virologist Sara Cherry, who are searching for drugs that might block coronaviruses from entering cells and replicating.

But this flurry of attention was preceded by a long period of neglect. "Just a few decades ago, we were on the periphery, even among virologists," Weiss told me. The first coronavirus conference was organized in 1980, in Würzburg, Germany. There were sixty people at the conference—"virtually the entire coronavirus group at that time." Federal grants were scarce, and her lab, along with the small band of researchers, struggled for decades with minimal funding. Then, in 2003, SARS hit. "And, of course, suddenly everyone was interested," Weiss recalled.

That September, the National Institutes of Health put out a "Request for Applications" to study SARS. The N.I.H. organized workshops featuring "international experts in the fields of coronavirus biology," and blue-ribbon panels on topics like "priority pathogens," biodefense, and vaccines.

"We were suddenly in the middle of all attention," Weiss said. Then SARS stopped spreading, and the interest evaporated.

But surely, I asked Weiss, someone should have anticipated that another similar pandemic might arise?

"You would think so, wouldn't you?" Weiss said, her voice tightening in indignation. "You would *think* so." If the research on coronaviruses had kept

pace, we might have had an array of treatment options, even a vaccine platform that could be adapted for the coronavirus now circulating, a cousin of the one that causes SARS.

I searched a database called Grantome to confirm Weiss's observations. The plot of federal grants awarded for coronavirus research in the past few decades looks like a bell-shaped curve. In the nineteen-nineties and early two-thousands, there were typically between twenty and thirty such grants a year; these were the lean decades that Weiss had referred to. Predictably, the number surged after 2003, when SARS arrived, reaching its peak of a hundred and three in 2008. And then came the decline. This year, no doubt, the line will rise again.

"The investigators came and then they left," Stanley Perlman, a microbiologist at the University of Iowa, told me. He's another veteran coronavirus researcher who has watched labs drift away from his field of concern.

To be fair, the N.I.H. awards most of its grants based on unsolicited applications it receives from scientists, and it must balance national priorities. "Look, we live in uncertain times," Michael Lauer, a senior administrator at the N.I.H., said. "The N.I.H. cannot predict pandemics any more than anyone else can." And, he stressed, "there's already an internal effort to maintain a diverse portfolio within the Institutes. The whole of the N.I.H. evaluates its entire portfolio every five years. And some of the grants build the infrastructure to pay for clinical trials that can be rapidly deployed during a pandemic"—a network of clinicians who can move as a body when needed.

Still, the bell-shaped curve of coronavirus funding nagged at me. Boom-and-bust cycles in research have consequences: lab technicians are skilled workers who are laid off or retrained as priorities shift. When I worked in a viral immunology lab as a grad student at Oxford, our research infrastructure was supported by dozens of technicians, each trained one-on-one by yet another layer of skilled technicians. It was a product of time and the accretion of expertise. A well-run, focussed lab is like a village, not a Quonset hut you can put up overnight.

What's more, it was known that SARS and MERS were deadly coronaviruses with animal reservoirs that could hop to humans. Disease modellers had determined that a respiratory virus with modes of transmission similar to SARS-CoV-2 was a likely culprit in a future pandemic. Why wasn't our research investment remotely commensurate with our threat assessments?

On Sunday, April 4th, Tatiana Prowell, a doctor at Johns Hopkins, messaged me on Twitter. She forwarded an e-mail from a radiologist in Los Angeles, along with a CT scan of a young patient's lung, with a golf-ball-size clot. An unusual finding was cropping up in patients with severe SARS-CoV-2 infections: blood clots in the lung, called pulmonary emboli (P.E.s), and strokes caused by clots in the brain. Some were tiny, nearly undetectable, and some were huge. "I think this is a major unrecognized cause of mortality," Prowell wrote. "My phone is full of msgs from physicians from every specialty asking if others are also seeing unexpected thromboembolic events in young, healthy patients with COVID-19. Neurologists getting consulted for stroke, cardiologists finding large clots on echocardiograms, nephrologists noticing dialysis catheters clotting, radiologists finding PEs on scans. I think there is a slow collective awakening to the fact that this is not an isolated phenomenon."

In fact, the "slow collective" awakening was already well under way—elsewhere. Chinese doctors had apparently seen such blood clots, and started giving patients blood thinners to prevent them. ("Why are American doctors so resistant to learning from excellent Chinese doctors who . . . have been on the front line longer," someone admonished me on Twitter.) One patient—a man in his twenties—texted me a picture of bluish spots on his thighs, evidently a scattering of minuscule clots in the skin. I e-mailed a doctor in London; in autopsies, he told

EVICTION

Back from Dublin, my grandmother
finds an eviction notice on her door.
Now she is in court for rent arrears.
The lawyers are amused.
These are the Petty Sessions,
this is Drogheda, this is the Bank Holiday.
Their comments fill a column in the newspaper.
Was the notice well served?
Was it served at all?
Is she a weekly or a monthly tenant?
In which one of the plaintiffs' rent books
is she registered?
The case comes to an end, is dismissed.
Leaving behind the autumn evening.
Leaving behind the room she entered.
Leaving behind the reason I have always
resisted history.
A woman leaves a courtroom in tears.
A nation is rising to the light.
History notes the second, not the first.
Nor does it know the answer as to why
on a winter evening
in a modern Ireland
I linger over the page of the *Drogheda*
Argus and Leinster Journal, 1904,
knowing as I do that my attention has
no agency, none at all. Nor my rage.

—Eavan Boland

me, "we are finding micro-emboli, small clots, in the lungs." During the next few days, my in-box and my Twitter feed brimmed with notes from doctors and researchers remarking on these findings, and wondering about trials for virus-infected patients and blood thinners.

Is this loose, informal transmission of anecdotal findings—call it chatter, call it rumor—part of medicine? It isn't what anyone is taught in medical school; it doesn't fit in with the professional's image as a purveyor of rigorously tested interventions. But continuous, iterative clinical knowledge—the kind that can be updated minute by minute—is invaluable during this tumult, when time is of the essence and there's scant research to fall back on. Such updates are like weather reports in the middle of a storm. They matter in the moment; once the storm passes, they're yesterday's news. COVID-19 has similarities to familiar conditions, but it is a new condition and, like all new conditions, it has its peculiarities. When doctors exchange notes on their experiences—about an odd incidence of blood clots, about a ventilator setting that seems easier on the lungs, about the results of putting patients in a prone position in order to ease breathing—they can adjust treatments and improve patient outcomes. Not every provisional finding will pan out. Medical chatter can prove misguided, just as there's plenty of bunk in open research archives. Still, anecdotal patterns can lay the groundwork for a case series, and then a case-control study, and, ultimately, a randomized, controlled trial of a clinical approach. Already, observations that began as scattered tweets about emboli in COVID-19 cases have migrated into preprint journal articles, Webinars, and official recommendations from professional bodies.

The way clinicians have made use of Twitter and Facebook during this crisis has been a heartening development. We've cobbled together an informal medical bulletin board for the pandemic; even as we wade through the muddy slop of fake news, we have a forum of exchange that is flexible, versatile, and timely. This is a story of something that's gone right—and of something that's gone very wrong.

That's because clinical medicine is, among other things, an information system, and a central part of that system is broken. Patient records that once were scribbled on clipboards now sit in electronic medical-record (E.M.R.) systems, many of them provided by the Wisconsin-based software company Epic. A standardized digital database of patient-care records, searchable across hospital and medical-care systems, could be an invaluable way of identifying effective approaches to a novel disease—like moving from a patchwork meteorological system where towns keep their own records of wind and rainfall to a national weather-tracking grid. A putative advantage of digital hospital records is to enable on-the-fly searches—not the kind of data project that the N.I.H. might fund (its grants take weeks to process even on an accelerated schedule) but the kind that might be completed in an hour. Perhaps, I thought, we should be advising COVID-19 patients to call us if they suspected clots—if their breathing rate and heart rate increased suddenly, for instance. Perhaps our hospital system's emergency department should be alerted.

Because clotting is a frequent issue among patients with cancers, I called my colleague Azra Raza, the director of Columbia's Myelodysplastic Syndrome Center, to ask if we could search through the database of her patients for any who had reported being infected, and, if so, had experienced blood clots. She sighed. "I can't think of a simple way to do this," she told me. "And in any case, because of all the concerns around privacy, if you wanted to report the findings you would have to file with the institutional review board."

"But that would take a month, at least," I protested. (In recent weeks, many hospitals have accelerated their review process to deal with the pace of the pandemic.)

"It's the way the system is," she said. "If you want to report the number of times a patient has cut her nails in the last week, you would need approval. And it's not easy at all to search the E.M.R. for any of this information. You'd have to hire someone specifically to look through it."

A cardiologist at Massachusetts General Hospital, in Boston, echoed this frustration on Twitter: "Why are nearly all notes in Epic . . . basically *useless* to understand what's happening to patient during hospital course?" Another doctor's reply: "Because notes are used to bill, determine level of service, and document it rather than their intended purpose, which was to convey our observations, assessment, and plan. Our important work has been co-opted by billing."

The promise of bringing medical recordkeeping into the digital age was to maintain a live record of a live patient, enabling clinicians to track patient care across hospital systems and over time. Instead, we've been saddled with systems that cut into patient care (clinicians typically spend an hour feeding documentation into a computer for every hour they spend with patients) and, often, are too fragmented to allow a patient's file to follow her from one medical center to another. The E.M.R., as a colleague of mine put it, is "electronic in the same sense that your grandfather's radio is electronic." The energized, improvisatory role of medical Twitter inevitably draws attention to what our balky, billion-dollar systems should have been providing—to the cost, in dollars and lives, of the rapid clinical learning that we've forgone.

It's hardly news that our E.M.R. systems have failed medicine, and yet an executive order from New York State, issued at the end of March by Governor Andrew Cuomo, amounted to a grim epitaph: "Health care providers are relieved of recordkeeping requirements to the extent necessary for health care providers to perform tasks as may be necessary to respond to the COVID-19 outbreak. . . . Any person acting reasonably and in good faith under this provision shall be afforded absolute immunity from liability." A system designed to expedite and improve the delivery of health care was officially recognized as an obstacle.

"When the tide goes out," Warren Buffett once said, "you discover who has been swimming naked." The pandemic has been merciless in what it has exposed. In many cases, the weaknesses in our medical system were ones that had already been the subject of

widespread attention, such as the national scandal of health-care coverage that leaves millions of Americans uninsured. In others, they *should* have been the subject of widespread attention, because we had plenty of warning. Again and again, in the past several weeks, we've heard of shortages—shortages of protective gear, of ventilators, of pharmaceuticals. Yet, even before the crisis, medicine was dealing with troubling scarcities of needed drugs and support systems. Last summer, long before the pandemic, pulmonologists were raising concerns about a lack of oxygen supplies—the result of cost-cutting measures by suppliers of durable medical equipment. Competitive-bidding programs drove margins down so low that more than forty per cent of such companies—responsible for the supply of portable oxygen tanks and concentrators—went out of business. Inventory diminished; delivery times increased. Patients suffered. Neeta Thakur, a pulmonologist and researcher at the University of California in San Francisco, told me about the byzantine process (involving "ten to fifteen disconnected steps") that was required in order for a patient to receive oxygen at home—a patient who is then at the mercy of the intermittent delivery schedules of understocked venders. The problem builds into a failure cascade: if patients cannot be discharged from the hospital because they cannot have oxygen at home, the resultant logjam delays the treatment of other patients who need those beds for acute care.

The pharmaceutical system was clearly fraying as well. Vincristine, which I use to treat blood cancers, was among a hundred important drugs that have been in critically short supply in recent years. Even bags of sterile saline solution—the most basic I.V. fluid, nothing more than salt and water—were hard to source. (Many American hospitals used bags made by a single manufacturer, in Puerto Rico, which was devastated by Hurricane Maria.) An F.D.A. report published in October noted that manufacturers had little incentive to produce less profitable drugs; that the market failed to reward " 'mature quality systems' that focus on continuous improvement and early detection of supply chain issues"; and that "logistical and regulatory challenges make it difficult for the market to recover from a disruption." If one factory went offline, the entire nation's supply of a critical drug could be imperilled.

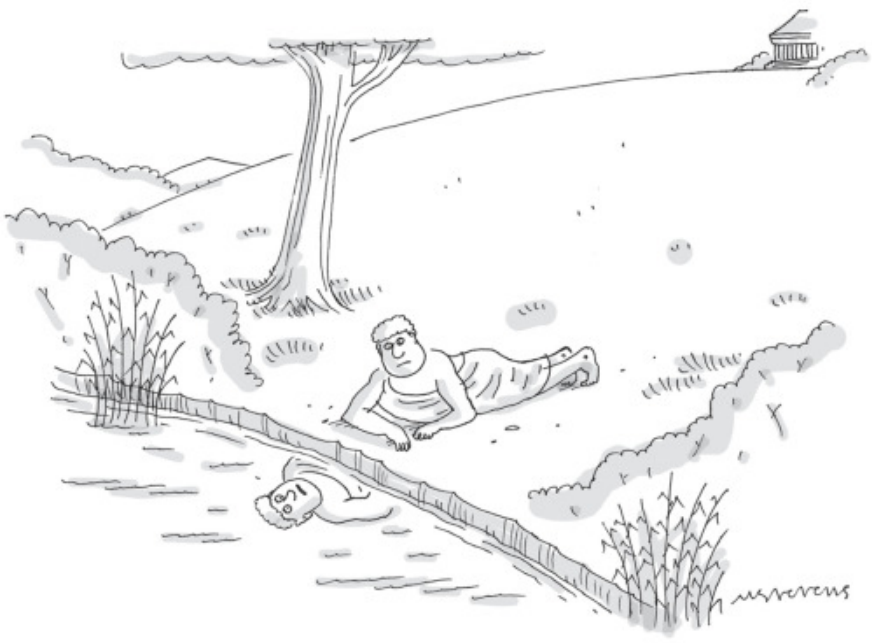
As such pre-pandemic stories proliferate, they point toward more fundamental reckonings. Leave aside the tragedies of those who died alone in isolation rooms in hospitals, or of the disproportionate disease burden borne by African-Americans and working-class immigrants. Leave aside the windblown avenues of an empty, joyless city, the generation-defining joblessness that has shifted so many from precarity to outright peril. To what extent did the market-driven, efficiency-obsessed culture of hospital administration contribute to the crisis? Questions about "best practices" in management have become questions about best practices in public health. The numbers in the bean counter's ledger are now body counts in a morgue.

For decades, consultants had taught the virtues of taut business practices. "Slack"—underutilized resources, inventory waiting to be put to use—was shunned. I spoke to David Simchi-Levi, an M.I.T. professor who studies supply-chain economics and how enterprises respond to disasters. "Cost is easy to measure," he told me. "But resilience is much harder." So we reward managers for efficiencies—and overlook any attendant fragilities. His view can be summarized simply: we've been overtaught to be overtaut.

"We've been teaching these finance guys how to *squeeze*," Willy Shih, an operations expert at Harvard Business School, told me, emphasizing the word. "Squeeze more efficiency, squeeze cost, squeeze more products out at the same cost, squeeze out storage costs, squeeze out inventory. We really need to educate them about the value of slack."

Simchi-Levi is particularly interested in two variables that could serve as metrics for resilience. The first is the "time to survive"; that is, how long can an enterprise endure when there's a sudden shortage of some critical good? The second is the "time to recover": how much time will it take to restore adequate supplies of some critical good? By quantifying each variable under different scenarios, a business can model its ability to recover from a disaster. He told me about floods in Thailand that shut down factories responsible for critical computer and automotive parts. Afterward, some companies expanded their supply lines to other parts of Asia. Having seen the fragility of a tight chain, those companies had now established a network with some spring in it. In the future, their "time to survive" would exceed the suppliers' "time to recover."

Toyota's recovery from the Aisin factory fire in 1997 can sound like a story of triumph, as, in many respects, it was. But the company's executives realized



"Could we cut it short today? I need a little me time."

that it was also a story of failure. The company shouldn't have been so vulnerable to such an event. The fire, along with a later disaster—the 2011 earthquake, which cut off its supply of a crucial microchip—taught Toyota the value of redundancy and risk assessment. It modified its just-in-time system to allow for at least a month's worth of specialized components, building strategic slack into its operation. It created a database, called RESCUE, with dozens of companies organized into tiers, their risks regularly evaluated under conditions of adversity, and information on sixty-eight hundred parts continually updated. The company maintains constant communication with its suppliers under "ordinary operating conditions." But it also trains employees to operate during disasters, and evaluates the risk to the entire company if nodes in the network should falter. No enterprise is truly disaster-proof, but in cultivating networks of mutual loyalties the company has engineered resilience.

Yet resilience isn't simply a matter of having supplies at hand. In Shih's view, the most critical kind of slack doesn't take the form of a stockpile. Rather, he told me, "I think of slack as *capacity and capabilities*." What you really want to measure, model, and establish is the capacity to build something when a crisis arises. And this involves human as well as physical capital. We need to measure talent, versatility, and flexibility. Overtaut strings inevitably break.

Resilience in our medical system will involve more than considerations of physical supplies. Take the debacle of the C.D.C. detection kit. Here's where attention to "mature quality systems" matters. South Korea has so many test kits that it's now exporting them for use in the United States. What was its approach? The government identified more than twenty reputable venders, certified their products through a sound evaluation process, and set their factories loose to meet the demand. That's what the C.D.C. should have done, long before the pandemic arrived on these shores. In preparation for a future pandemic, the C.D.C. could run the equivalent of fire drills, identifying the capacity, almost on the model of Toyota's RESCUE database, to create and mass-manufacture such kits during a time of crisis. The organization, rather than closing itself off, working chiefly with state and military labs, could fortify lines of communication with the commercial and clinical labs that actually serve the vast majority of patients. The F.D.A. could have had a streamlined E.U.A. form already in hand—preferably without a requirement that it be sent by pigeon post—rather than having labs waste critical time placating its bureaucracy. Before the next public-health crisis emerges, the F.D.A. must think hard about how to balance speed and oversight, adjusting the ratio to meet the moment but abandoning neither.

Slack can be costly. As Greninger put it, "Right now, I have machines and reagents to test tens of thousands of patients for SARS-CoV-2. That's basically all the clinical virology lab is doing. What will happen when the epidemic is over?" Once the incidence of COVID-19 subsides, so will the sense of urgency when it comes to building infrastructure, or stockpiling equipment—masks, ventilators, reagents—that might sit unused in warehouses for a decade or more. We need purchasing procedures that control costs without creating conditions in which critical supplies vanish during a crisis. We need a Strategic National Stockpile that has sufficient inventory to ease temporary shortages. But, most of all, we need an identified capacity—a network that can be activated on demand, repurposing manufacturing lines, recalibrating agency protocols.

In research, too, we need strategic reserves and cultivated capacities: a scientific infrastructure directed at our existential threats—categories of pathogens with the potential to disrupt human communities en masse. This may require regular "Requests for Applications," determined by an advisory panel, that will encourage researchers both to advance our microbiological understanding of such agents and to develop interventions and therapeutic platforms. The N.I.H. has many funding priorities; this agenda must take its place among others. Yet it cannot be allowed to slip to the margins as ambitious researchers move toward new areas of excitement. Research does not benefit from a feast-or-famine ecology.

Finally, we need to acknowledge that our E.M.R. systems are worse than an infuriating time sink; in times of crisis, they actively obstruct patient care. We should reimagine the continuous medical record as its founders first envisaged it: as an open, searchable library of a patient's medical life. Think of it as a kind of intranet: flexible, programmable, easy to use. Right now, its potential as a resource is blocked, not least by the owners of the proprietary software, who maintain it as a closed system, and by complex rules and regulations designed to protect patient privacy. It should be a simple task to encrypt or remove a patient's identifying details while enlisting his or her medical information for the common good. A storm-forecasting system that warns us *after* the storm has passed is useless. What we want is an E.M.R. system that's versatile enough to serve as a tool for everyday use but also as a research application during a crisis, identifying techniques that improve medical outcomes, and disseminating that information to physicians across the country in real time.

No set of reforms will deal with every problem, such as a President who, bickering with scientists, equivocated and delayed what could have been a lifesaving, economy-protecting, coördinated response. Given the resolve and the resources, however, much is within our grasp: a supply chain with adequate, accordioning capacity; a C.D.C. that can launch pandemic surveillance within days, not months; research priorities that don't erase recent history; an F.D.A. that serves as a checkpoint but not as a roadblock; a digital system of medical records that provides an aperture to real-time, practice-guiding information.

"Recovery" is the word of the moment; it connotes a return to a previous state of well-being. For many patients with chronic conditions, though, treatment aims not to restore a baseline of precarious health but to reach a higher baseline. Some of medicine's frailties are new; some are of long standing. But what the pandemic has exposed—call the experience a stress test, a biopsy, or a full-body CT scan—is painfully clear. Medicine needs to do more than recover; it needs to get better. ♦

Astoria, Queens.

OUR LOCAL CORRESPONDENTS

APRIL 15, 2020

Twenty-four hours at the epicenter.

PHOTOGRAPH BY MARVIN ORELLANA

The novel coronavirus is not the first pandemic of the global age, but it is easily the most relentless. In just a matter of months, from the first appearance of respiratory illnesses in a cluster of people associated with the Huanan Seafood Wholesale Market, in the Chinese city of Wuhan, the virus infected millions of human hosts, killing tens of thousands. The disease it causes, COVID-19, has come to every corner of the earth, except Antarctica. How it first reached New York City, which by late March had become known as the epicenter of the pandemic, is not hard to imagine. John F. Kennedy Airport is the busiest point of arrival for international passengers in North America. Infected people arrived in New York from Italy, from the U.K. and Spain. And, while travel to the city has slowed, the planes keep coming, the travellers disembarking, around the clock.

Soon after midnight on April 15th, the passengers of Delta Flight 1888, from Atlanta, filed into Terminal 4. Hours earlier, Governor Andrew Cuomo had said that the city was at "the apex of the plateau" of the epidemiological curve. The first passenger to reach the baggage claim wore a respirator mask. Three military nurses from Pensacola followed with a quick step. They were heading to work on the U.S.N.S. Comfort, afloat in the Hudson River and operating as a vast supplementary hospital. A man named Henry Vargas paused to catch his breath. He lives in the Little Italy section of the Bronx and has been suffering from lymphoma. When the first COVID-19 case in the United States was confirmed, on January 20th, in the state of Washington, Vargas was in Seattle, undergoing a three-month-long stem-cell treatment, which had laid waste to his immune system. "You have nothing left," he said. "They have to reintroduce you to all the vaccinations, as if you were a newborn." He waited for weeks before it was safe for him to travel. When his doctors finally cleared him, the best ticket he could find required two connections—some eleven hours airborne. It was a nerve-racking trip: "The person sitting next to me could sneeze, and that could kill me." He was relieved to be back in the city. "This is my home," Vargas said, and shuffled toward the exit.

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In Crown Heights, in Brooklyn, Josiah Charles lay in bed, after midnight, watching the movie "Midsommar" and logging in and out of her bank account. She'd worked at a party store called Balloon Saloon, but it had closed. "It might be on pause for a while," she said recently. "I don't think that anyone wants to celebrate anything anymore." Six hundred dollars in unemployment funds had disappeared fast; for more than a week, her account balance had been less than seventy-five cents.

Charles had read online that the federal government was about to send out twelve-hundred-dollar stimulus checks to millions of Americans. Those who were signed up for direct deposit with the I.R.S. would receive them first—presumably, she reasoned, at 1:30 A.M., which is when her biweekly paychecks had once hit her account.

At 1:28 A.M., she logged back in. Nothing. She opened up a new tab and went on Reddit. Hundreds of other people were doing the same thing: waiting for the I.R.S. to send them money on what would have been Tax Day.

"WHERE MY CHASE BROS AT?" a user named brewsnob asked on "THE FINAL COUNTDOWN MEGATHREAD."

"I got all my notifications turned on," kburchdmv wrote, "and I'm logged in to Wells Fargo."

At 1:33, xI-Red-Ix wrote, "CITI bank deposited."

Sadxtortion: "Wow I checked and mine hasn't come through. I wonder if maybe I'm just not part of the first round."

Charles checked her account again. Zilch. Maybe she wasn't part of the first round, either. She paused the movie—it was the first sacrifice scene—and continued to scroll through Reddit. 1:36 A.M.

"Ugh I can't sleep," bossladyfaithdg wrote. "My husband just got into a car accident today. totaled and not covered by insurance. I need this stimulus."

At 1:37, Charles logged back in to her Advantage SafeBalance Banking account. It showed a total of $1,200.73. Thank God, she thought. She took a screenshot of her balance and posted it, with the one-word caption "Stimulated."

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Around three o'clock in the morning, Bradley Hayward, a critical-care physician at Weill Cornell Medicine, in Manhattan, led a team of doctors to a patient's room on an upper floor. The patient, a middle-aged man, had come off a ventilator the day before, and was now in cardiac arrest. Hayward, assisted by a critical-care fellow, two residents, and a nurse, stripped the man naked and rolled him onto a backboard. Hayward placed his hands on the patient's chest—the skin was cold, which suggested that the man did not have a fever when his heart stopped—and pushed until he felt the ribs cracking. In two-minute shifts, pressing faster than once per second, Hayward and the fellow used manual compressions in an attempt to circulate blood throughout the patient's body. A machine monitored their pressure; if it slackened, a mechanical voice said, "Push harder."

The cardiac complications of COVID can be a mystery. In Hayward's experience, running a code, as the process of attempted resuscitation is known, typically doesn't last much longer than twenty minutes. But, without knowing what caused the patient's heart to stop, Hayward could not be certain how to start it again, or how long it might take to do so. After eight minutes, an airway team, led by an anesthesiologist, entered the room to perform an intubation. The procedure, which is necessary for the use of a ventilator, releases a spray of particles from a patient's lungs, and is one of the riskiest for health-care providers treating COVID patients. Hayward kept up compressions until the moment before the ventilator tube slid down the patient's throat. A few minutes later, a triangular contraption called a LUCAS, which automates the work of compression, was delivered. By then, both Hayward and the fellow were sweating and out of breath.

After half an hour, the door to the patient's room opened. Someone suggested that it was time to call the code.

Hayward called back, "It's not up to you." But, when it became clear that the man was not reviving, Hayward went around the room and asked if anyone objected. No one did. Hayward switched off the LUCAS and checked for a pulse. Seventy-five minutes after the code had started, he looked at the clock.

The sun rose at 6:16 A.M., but it was hard to tell. Gray clouds that had arrived from the North Atlantic packed the sky. On Brooklyn's Brighton Beach, where the benches on the boardwalk face the sea, almost nobody was out. Circles of light under the boardwalk's long rows of street lamps, and the lamps themselves, receded to a vanishing point. Set back from the beachfront, Brighton's high-rise apartment buildings stretched up into the darkness. Now and then on the nearby Belt Parkway, E.M.S. trucks went by, flashing.

If you got close enough to the buildings, you could hear various things attached to them humming. Hundreds of yards away, the waves were coming in quietly. As the sun came up, dully brightening the morning, it revealed that the day was ordinary and out of the ordinary at the same time. Figures appeared far apart on the boardwalk, each one alone, each making a different exercise motion. One was using a jump rope, another had two small dumbbells, and another a piece of pipe. Many wore masks. On the horizon to the left lay the narrow sand spit of the Rockaways, a stratum of pale-brown beach below a gray-green line of bushes and trees. To the right loomed the grayish point of Sandy Hook, in New Jersey. In between, a small boat motored slowly by, its wake as white as a bridal train. The ordinary-extraordinary day settled in and locked itself into place. The labyrinthine streets of Brighton Beach were so unbusy you could forget the sidewalks and wander in the middle of them anywhere. The whole city had become a waiting room.

•

At a Holiday Inn Express in Corona, Queens, John Springs left his room and rode the elevator down to the lobby. It was around 6:30 A.M. On a table near the front desk, dozens of white paper bags, filled with a day's worth of food, sat next to a list of guests. Springs, wearing a sweatshirt, gray sweatpants, Timberland boots, and a face mask, scanned the list for his name, scribbled his signature, and took a bag.

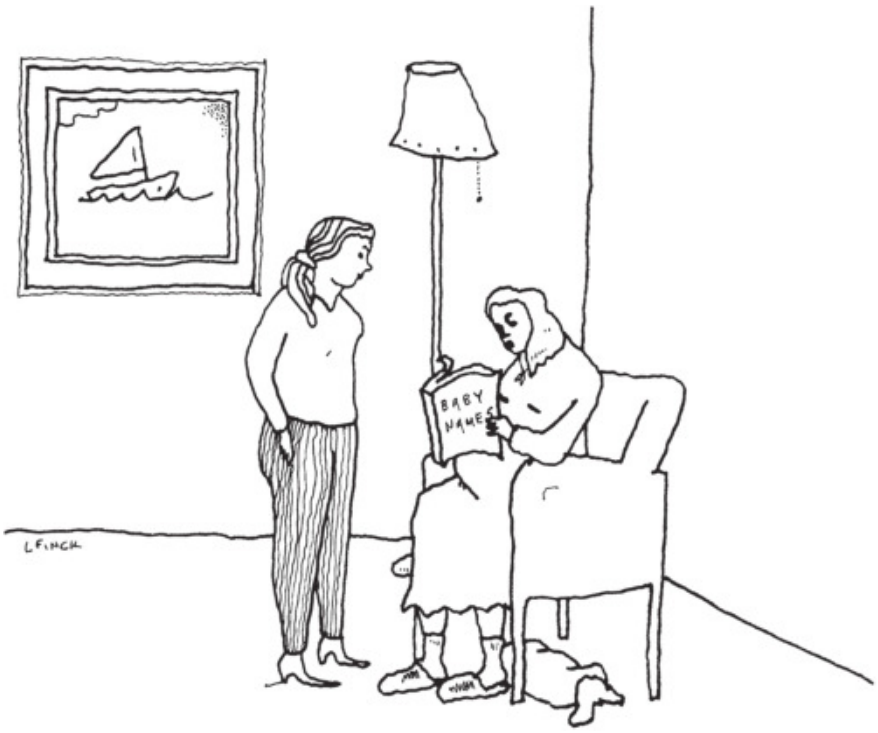
Springs spent much of the nineteen-eighties and nineties in prison, where he wrote and published five pulp-fiction novels. In more recent years, he had been a fixture on Broadway and 110th Street, where he sold used books on the sidewalk. On March 27th, Springs was serving a ninety-day sentence on Rikers Island for failing to report to his parole officer, when Governor Cuomo announced that he was going to release several hundred "parole violators" early; inside the jail, the rate of COVID-19 infection had surged, turning the island into the epicenter of the epicenter. Springs and dozens of other men were placed on a bus, which took them across the Rikers Island bridge to a hotel in Harlem. It had been thirty years since Springs had stayed in a hotel. When he walked into the lobby, he said to himself, "Have we all died and gone to Heaven?" (In the *Post*, a "disgusted source" said that he was surprised that the men leaving Rikers "weren't given stretch limos.")

The men stayed there for two nights, then were told to find their way to the Holiday Inn Express. On Tuesday, April 14th, Springs, who suffers from chronic inflammation of the lungs, visited the Long Island Jewish Forest Hills hospital to get a new albuterol pump. There, he tested positive for COVID-19. He had no symptoms and returned to the hotel, where he self-quarantined, leaving his room that morning only to pick up his food bag.

He unpacked the food, item by item, into the mini-fridge—a small marble cake, a boiled egg, a peach yogurt—and got back in bed to read. On a desk was a stack of used books, which he had picked up recently from a recycling bin on the Upper West Side: "Living Language: Italian," "Dating Sucks," by Joanne Kimes, Voltaire's "Candide, or Optimism."

•

At eight o'clock, when Derrick Palmer arrived at the Amazon fulfillment center on Staten Island for his morning shift, there was a new sign at the entrance: "Please walk slowly through the



"But what will we name the baby after it becomes an adult?"

•

"Tell the messenger I'm almost done with my sext."

• •

lane and the camera will detect your temperature." Previously, masked employees wielding thermometer guns had taken co-workers' temperatures as they entered the four-story building; now an automated system was in place. Since the outbreak of the pandemic, Palmer and a small group of his fellow-workers had organized demonstrations for hazard pay, paid sick leave, and more thorough cleaning of the center. In the same period, Palmer, who has worked at Amazon for four and a half years almost without incident, received a disciplinary warning, ostensibly for violating social-distancing measures; another warning and he could be fired. In the lobby, a "Voice of Associates Board" displayed comments from workers. One named Elijah had written, "In all honesty we need to close this warehouse. . . . Some of us have big families to return to when we clock out of work."

Palmer put his coat in a locker and stepped into the roar of spinning conveyor belts on the fulfillment center's floor. The work of an Amazon associate is organized by task. That morning, Palmer was assigned to be a "counter," auditing the inventory in storage units known as "pods." Walking past workers standing at intervals of twelve feet alongside a fenced-in area where shelving units borne by robots pivoted and zoomed, he noticed that a co-worker who had tested positive for the coronavirus and a manager who had been quarantined for possible exposure were back on the job, apparently cleared for return. He picked up a scanning gun and began counting products that would soon be shipped: Brickell Purifying Charcoal Face Wash for Men, Gogo Squeeze applesauce pouches, Cascade dishwasher pods with OxyClean . . . Shortly after 9 A.M., he was visited at his station by a manager, who was conducting a survey of employees about their ability to maintain social distance while on the job. Worried that what he said might be used against him, he declined to participate.

•

In Times Square at 8:30 A.M., the digital billboard ads blared, beaming their enticements down on nobody. John King, the deputy general manager of the Hudson Theatre, walked into the Millennium Hotel, with which the theatre shares a rear entrance, said hello to a familiar security guard, and took a series of hallways to the management office, where, on a normal day, he would have already been at work. He grabbed his keys and a flashlight, and went into the theatre.

He took an elevator from the basement to the dress circle, then walked up several flights to the highest balcony. A drained wash of yellowish light came from a single bulb on the lip of the stage. Each Broadway theatre has one: a ghost light, which goes on as soon as the house clears out after a performance. Every theatre, it's said, is inhabited by a ghost. The light keeps the ghost company, or acts as an offering to keep away curses, or illuminates the stage as the spectral performer plays all night. The upshot of the superstition is that, real bodies be damned, some implicit spiritual theatrical event is always under way, wherever there's a stage. The ghost lights on Broadway have been shining uninterrupted since March.

Using his flashlight, King inspected the emergency exits on the balcony, making sure they hadn't been blocked or jimmied open, and then he did the same on the dress-circle level. In the Ambassador Lounge, used for receptions and toasts, King peered through the windows, which face the street, at the unlit marquee outside. The last show to finish its run at the Hudson was David Byrne's "American Utopia." In the show, Byrne sings a song whose lyrics now seemed a fantasia:

> Imagine driving in a car
> Imagine rolling down the window
> Imagine opening the door
> Everybody's coming to my house
> Everybody's coming to my house

•

At 9:15 A.M., Soraya Ribeiro—who was born in Goiânia, a planned city in central Brazil, but who has long been a resident of Astoria—arrived at a town house on the Upper East Side. Waiting on the second floor were two wheaten terriers, Gio Ponti and Pippa, that she takes on walks. Unlike the rest of Ribeiro's clients, the dogs' owners, members of the Zabar grocery dynasty, had not left the city. Gio Ponti and Pippa

bounded downstairs to meet Ribeiro in the front alcove, and leaped to kiss her through her mask—the "wheaten greetin'." Ribeiro leashed her charges and set off past the façades of Fifth Avenue, entering Central Park at Ninetieth Street and walking south. The cherry trees were in blossom and the skyscrapers of Billionaires' Row stood out against a startlingly clear sky.

Usually, Ribeiro walks a bouquet of purebreds, and kids swarm her. Now, she noticed, passersby looked a little scared. She was scared, too. Ribeiro charges by the hour, about thirty dollars per dog. Some of her clients had Venmoed cash gifts after heading to their country houses, but her usual pack—Tinker Bell, Kiki, Chouquie, Teddy, Gilda, and many more—had shrunk to just the two wheatens. Still, she was content to be in the fresh air, which gave her the feeling that everything would return to normal soon. Near the Alexander Hamilton statue, Gio Ponti and Pippa spotted a squirrel. Ribeiro dropped the leashes and the dogs ran off to chase it. They treed the squirrel—a moment of unbridled bliss. Then it was time to go home. "Over here, guys," she called out to them, across an empty field. "*Vem cá!*"

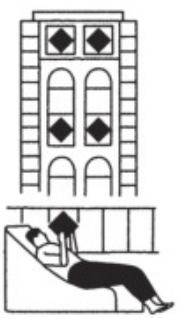
•

At 9:55 A.M., El pulled up in his 2007 Acura MDX right in front of an apartment building in the East Seventies. Waiting for him was a man in a button-down shirt, a corporate lawyer at a tech company. El, who has a beard and a receding hairline, wore a hoodie and a leather jacket. He handed over the lawyer's order: some edibles, sativa, and indica for the night. The bill was six hundred dollars. After the lawyer, he was delivering to a finance guy in Tribeca, a nurse in Bushwick, and a film director in Ridgewood. El had been dealing for ten years, but he'd never been on a run like this. Instead of an eighth, people were buying a whole ounce; El's gross was up almost fifty per cent. "It's multi-reason," he said. "Fear of drought and the fact people are consuming more because they're working from home."

The nicer the work conditions, the happier El is. By these terms, these were halcyon days. "I haven't remembered a time like this in ever," he said. His travel time was cut in half and the parking was "seamless." For social-distancing reasons, he usually dropped the weed in his clients' mailboxes; when he met the lawyer, though, he stopped to chat—about friends they knew who were sick and others whose trips had been cancelled. The lawyer was leaving town for two months. His wife called from a window, telling the men to keep their masks on. El complied, to keep the peace, but the coronavirus doesn't particularly frighten him. He worked in health care before getting into the marijuana business. "I've been exposed to everything over the years," he said. The men kicked feet goodbye.

•

At ten-thirty, outside the PATH Family Center, on 151st Street in the Bronx, there was a smell of disinfectant and marijuana. A bearded employee was sweeping litter from the sidewalk. The center, run by the Department of Homeless Services, admits families with children into the shelter system. It also tries to help them find alternatives; PATH stands for Prevention Assistance and Temporary Housing. In ordinary times, the ramp outside is crowded with strollers, bumper to bumper. Not now. The hotels are empty, so some of them have contracted with the city to provide sixteen thousand rooms for temporary shelter. Just as after 9/11 and Hurricane Sandy, attention and federal funds, provided by FEMA, are focussed on the city. As happened after those disasters, one day the money and the attention will end. "It's quiet now," the employee said, as he used his broom to flip a cigarette butt out of a tree pit and into his dustpan. "But I will tell you one thing—when this coronavirus is over, and the people start coming back, it will get crazy around here."



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At 11:02 A.M., Seth Meyers logged on to a Zoom call with a half-dozen staffers from "Late Night with Seth Meyers," to discuss a segment for that evening's show. In the absence of a studio audience at 30 Rockefeller Plaza, Meyers has had to get used to doing comedy in a void, recording on an iPad and using a teleprompter app. He was sitting in his attic crawl space, a familiar scene by now to his viewers: a green desk, a sliver of chimney, a copy of "The Thorn Birds." He's been filming his show there since the beginning of April, after experimenting in an upstairs hallway (too echoey) and a neighbor's garage (too cold).

"All right, let's go," Meyers said. As he read through a script, the staffers took notes. The show's producer, Mike Shoemaker, calling in from Westchester, sat in a chair in front of a circular painting of a cloudy sky. The script under discussion was for "A Closer Look," a segment in which Meyers reviews the news. The day before, President Trump had announced from the Rose Garden that he was pulling funding from the World Health Organization, and a Harvard study warned that some social-distancing measures might be necessary through 2022. "So, yeah," Meyers read, "we're going to need, like, six thousand more episodes of 'Tiger King,' stat. And you know what? Fine. I'm gonna watch every episode of 'Fuck Island,' too."

He stopped and said, "Maybe go with 'Fine, I'm going to *re*-watch'?"

Sal Gentile, who had written the script, was calling in from Park Slope. "Yeah," he said, making a note.

Meyers sped through the rest of the monologue, which ended without comedy. "When the time for a political accounting comes," he said, "we must remember that this was not inevitable, that it could have been prevented, and that a long sequence of failures led to this moment."

Gentile said that he would make some trims. " 'Fuck Island' will stay," he said with a smile.

"Throw it in a couple more times," Meyers said. "I feel like it'll get real traction."

•

At 11:30 A.M., at Montefiore Medical Center, in the Bronx, Joselyn Baez, a thirty-one-year-old emergency-room nurse, was working in the E.R.'s greeting station: a tent made from blue plastic

tarp and furnished with computer carts, which had been set up in the hospital's ambulance bay. It was cold, and Baez wore a hospital sheet wrapped around her neck as a scarf, an accessory to her layers of personal protective gear.

Patients drifted in, usually accompanied by friends or family members. Baez assessed how sick they looked and asked a round of COVID-specific questions: "Any fever, chills, or cough?" (Or, if they spoke Spanish, "*Tiene fiebre? Escalofríos? Tos?*") Then she gave them a wristband—orange for suspected COVID, green for non-COVID—and directed them to another station, for triage. People sometimes arrived in such bad shape that Baez had to drop what she was doing and rush them into the E.R. to be intubated.

On the worst days, patients had died by the dozen—in the I.C.U., which had tripled its capacity; in the hospital beds outside the emergency department; and on stretchers in the E.R. Baez once counted five white morgue trucks parked by the hospital's loading dock. Urgent codes rang out on the P.A. system: "Rapid response," for when a patient can't breathe; "C.A.C.," for cardiac arrest. One day, there were four or five codes by 10 A.M. She had turned to her best friend, also a nurse, and said, "They're dropping like flies."

Recently, though, a new tradition had begun. Whenever a COVID patient was taken off a ventilator or was discharged, hospital staff played a snippet of "Empire State of Mind," by Jay-Z and Alicia Keys. This was known as the "happy code." Shortly after Baez arrived at work, she heard the song. "Well, maybe some people are making it out of here," she thought. "Maybe COVID's loosening its grip a little bit."

•

It's not unusual for Carolyn Riccardelli, a conservator at the Metropolitan Museum of Art, to see the building's vast limestone entrance hall devoid of visitors; witnessing the museum's private life is one of the privileges of being on staff. What's strange is to see it without flowers. Lila Acheson Wallace, the co-founder of the *Reader's Digest*, permanently endowed the hall's stone urns in 1967; since then, the Met has received a delivery of flowers every Tuesday, which the Dutch master florist Remco van Vliet shapes into towering arrangements up to twelve feet tall. But, that morning, as daffodils bloomed and cherry trees shed pink petals onto sidewalks all over the city, the urns stood empty.

Riccardelli wore a face mask decorated with cartoon owls, and round-framed glasses that made her look a little like an owl herself. For the past month, she has come in every few days as a member of the collections monitoring team, a volunteer unit of curators, conservators, and collections managers who take turns checking on the dormant galleries and storerooms. From a human point of view, the pandemic has been disastrous beyond measure, but, from the perspective of the paintings and sculptures and pottery and tapestry and all manner of other precious objects that make their home at the Met, it's had a weirdly salutary effect. No people means no lights and no dust.

The Astor Chinese Garden Court features a pond full of koi, which Riccardelli fed with a scooper of orange pellets. Next, she stopped by the Venetian Sculpture Gallery to visit Tullio Lombardo's lissome Adam, the first life-size marble nude in the classical style made during the Renaissance. In 2002, the pedestal supporting it collapsed, and the sculpture shattered on the ground. Riccardelli spent the better part of a decade leading the team that put it—"him," she'd say—back together, so seamlessly that you'd never be able to tell there had been significant damage. His manhood modestly covered with a fig leaf, he stands as he once did in Venice, in a niche, unbitten apple in hand, as if he had never fallen.

•

At 11:46 A.M., a call came over the radio. "O.K.," Maddy Wetterhall, a twenty-four-year-old emergency medical technician, told the dispatcher. "We're clear and we're en route." A few weeks earlier, Wetterhall, who works for a private ambulance company based in Atlanta, had driven to New York City in her ambulance, with a caravan of out-of-state E.M.S. workers sent by FEMA to help with the crisis there. She'd been responding to 911 calls, "running Brooklyn," working ten-to-ten shifts every day since she arrived. It was her first time in the city. "It's crazy," she said. "There's no traffic here."

An elderly woman met Wetterhall and her partner at the door, and explained that her husband, who has severe memory problems, had been acting strangely for several days, not eating, not responding when spoken to. The woman led the E.M.T.s into a back bedroom. The shades were drawn. When Wetterhall's eyes adjusted to the dark, she could see that the man was lying in bed, fully dressed, with his arms crossed over his chest and his eyes closed. A framed, black-and-white picture of the couple at their wedding was hanging above the bed. "We've been married for over sixty years," the woman said.

The team brought the man downstairs and guided him toward the ambulance. Wetterhall noticed that the woman called her husband Buddy: "She goes, 'O.K., Buddy, they're going to help you.'" Because of the risks associated with the coronavirus, the man's wife couldn't accompany him to the hospital. Before handing him off to the E.M.T.s, she gave Wetterhall a note with her phone number and a list of his medications and dosages. "That's a super important piece of paper," the woman said. Her husband was anxious and disoriented, rocking back and forth in the stair chair. Wetterhall used a go-to calming strategy. "You explain everything to the patient as you're doing it," she said. "It's a way you can get a better connection with them." She used his nickname: "This is an ambulance, Buddy. We're going to see the doctors, so you can feel better. Buddy, we're going to get you help."

•

In Flatbush, at around midday, the rapper known as 22Gz, who had recently rolled out of bed, was shooting his latest music video. 22Gz is twenty-two, although he looks younger: skinny, with a bright smile and strikingly big eyes. Raised in the neighborhood, he grew up playing basketball in the parks and sometimes dancing on subway trains for tips. He is a big name in his home town and far beyond, but his videos tend not to require extravagant

The Upper East Side.

PHOTOGRAPH BY JEROME STRAUSS

budgets. A few months earlier, to promote a track called "Suburban, Pt. 2," he had invited some friends to the BP gas station across from the Kings County Hospital Center. A few dozen people showed up, dancing and mean-mugging for the camera; the resulting video accrued about ten million views on YouTube.

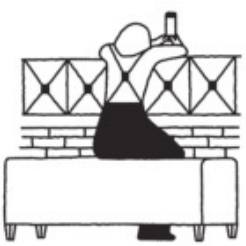
For years, one of the harshest insults in the hip-hop lexicon was "Internet gangsta"—to describe someone who acted tough online but was never seen on the streets. Now most rappers were staying inside, like everybody else. 22Gz recently had to return twenty thousand dollars in deposits for cancelled concerts.

The music for his new video came from a track called "308," which begins in the first-person plural: "When we spin through, it's a D.O.A." The video, like many in this era, was first-person singular. 22Gz, wearing a turquoise "Paid in Full" sweatshirt, used his iPhone to record himself, first doing a little arm-waving dance in the shower, then walking down the hall, then pouring syrup on a Styrofoam plate stacked with waffles. At one point, he pointed a can of Lysol at the lens, as if to dissolve viral membranes through the phone. There is an art to projecting this much hip-hop swagger while stuck at home, he reflected: "It's kinda boring, but you've got to vibe yourself up."

Just before 2 P.M., a man in a BMW pulled into an empty parking space in front of Russ & Daughters, the venerated smoked-fish purveyor on East Houston Street. Josh Russ Tupper, the fourth-generation co-owner of the business, playing an ad-hoc bouncer, unlocked the door and opened it. "Did you call in an order?" he said. The man hadn't, and drove away. The store has been around since 1914; in the past three decades, it has not been closed for more than a day or two. "During Sandy, we were open—a friend of mine brought a generator," Tupper said from his post at the glass-fronted door. "And the blackout—we were open as well." In the days after September 11, 2001, when downtown Manhattan was closed to traffic, Tupper's co-owner and cousin, Niki Russ Federman, walked hand trucks up to Fourteenth Street with store staff to meet their delivery drivers, keeping their counter open and stocked.

In March, the cousins began to worry about how to adapt the cramped, tenement-style store to the demands of social distancing. On the thirtieth, they decided to close, shifting orders to their Brooklyn production facility. The shop was shuttered for two weeks. It didn't feel right. On Tuesday, April 14th, the store reopened, though no customers were allowed inside—phone orders only. The next day, the air was perfumed with a familiar smell—smoky, briny, yeasty-sweet—tinged with a jagged note of surface cleaner. The wire baskets lining the walls were bare; the bagels were in the back, ready to be packed up for deliveries. The usually bustling store felt almost spacious: three employees worked at set-apart stations, and a private courier stood waiting to get an order into a backpack.

A man in orange safety gloves appeared at the door, pleading his case. "It's not a big order," he said. Call-in orders only, Tupper said. Next, a couple, masked, arms linked: no luck. An older woman appeared, thin and gray-haired, swaddled in a brown shearling coat. "I'm picking up an order," she said. One of the employees put together her bag: a bit of smoked fish, a bit of cream cheese, some babka, a bagel or two. Tupper regarded the assemblage as it came together on the counter. "This is a small little order,"



he said. "But you know, right now, if someone wants a quarter pound of whitefish salad, we're doing whatever we can."

•

On the fifth floor of the American Museum of Natural History, Cheryl Hayashi unlocked her laboratory door. In individual containers on a sunny windowsill, a dozen large garden spiders sat in their webs. Four Western black widows hunched, nearby, in small plastic boxes. Everyone but Hayashi had abandoned the lab on March 13th, when the museum shut down. Hayashi, who studies the tensile properties of spider silks, now leaves her apartment only to feed her animals.

She carried one of the containers to a lab table. The occupant, a Pacific garden spider, a type of orb weaver with spindly legs and a neon-yellow back, didn't move. Near at hand, scores of tiny brown crickets were crawling around inside a clear plastic box with a slotted lid. Hayashi lifted the lid and reached inside with long tweezers. She plucked out a cricket, placed it in a lab dish, and cut off its legs with a straight razor. When she offered the cricket to the spider, the spider crawled off, ignoring its food. Hayashi placed the cricket at the center of its web and said, "She'll find it."

Spiders are natural self-isolators, except when they mate. In the wild, they occupy separate bushes, separate trees. Hayashi was about to prepare another cricket when the yellow-backed spider suddenly lunged for its lunch. "There we *go!*" Hayashi said. Orb weavers are the type of predator whose survival depends on strategic patience: "They have to remain motionless and just wait."

•

Shortly after two o'clock, Germaine Jackson, a group station manager for the subway system, was wrangling station cleaners. "Mr. Williams, are you able to do four hours?" She was talking on the phone, a company-issued beast of a cell. "O.K., do Spring Street on the Charlie, then Canal Street on the C." She wore a high-visibility vest, and her eyes danced brightly above a blue mask.

All subway passengers these days are supposed to be essential workers, as defined by the statewide stay-at-home order. A sign you see on platforms makes it simple. "ESSENTIAL WORKER," it says across the top, with one arrow pointing left, to "YES," and then down, to "OKAY TO RIDE." A second arrow points right, to "NO," and then "WHY ARE YOU EVEN HERE READING THIS?," and then "GO

HOME." In the Herald Square station, which has eight subway lines running through it, plus a PATH-train terminal, every concession was closed. An elderly woman dozed behind a phone-charging kiosk, sitting on a suitcase, leaning against a well-filled shopping cart, her head nodding. Jackson's office is a windowless box on the lower mezzanine level. There was a map of the subway system taped on her wall, a tall black metal bookcase with stacks of forms on the shelves, and, in the corner, a large orange heavy-duty flashlight.

The headway was a little extended—subway language for fewer trains running than usual. The system had been plagued by staff shortages. To date, sixty-seven transit workers had died from the coronavirus. Twenty-five hundred had tested positive, and more than four thousand were in quarantine. The Metropolitan Transportation Authority has a workforce of around seventy thousand. It had been accused of neglecting the safety of its workers, a charge the M.T.A. leadership denies. "We have a lot of fallen soldiers, but we're hanging in there," Jackson said, into the phone. "You stay blessed." She hung up. She was giving overtime to the cleaners.

She manages thirteen stations, from midtown to SoHo and the Lower East Side, and disinfecting them had become a high priority: the handrails, the garbage cans, the MetroCard vending machines, the turnstiles, the elevator buttons—"everywhere a customer touches." That morning, she had carried bags of personal protective equipment with her as she rode the train to Delancey Street–Essex Street, handing out supplies to employees who needed them. Although passenger traffic has plummeted, the subway still carries four hundred thousand people a day, and, Jackson had noticed, customers were very appreciative, saying, "Thank you so much for running," and "I don't know how I'd get to work without the train."

Back on the phone: "Did Delancey call for comfort?" (Sotto voce: "That means leaving the booth to go to the bathroom.") Above her mask, her brows knitted. She listened, and nodded. "Whenever you leave the booth, you need to call," she said. "We'll never tell you no." As she spoke, she typed data into a spreadsheet on a computer monitor. Her energy seemed unlimited. But maybe she was exhausted. It was hard to tell with the mask.

"Unfortunately, my evil deeds attracted media attention."

•

Around three o'clock, Megan Liu stared at her screen as Lee Goldman, the head of the Columbia University Medical Center, addressed her graduating class from his office desk: "I just want to say how proud we are of all of you . . ." A pixelated audience looked on as a few other speakers made their remarks. Goldman cut back in. "I apologize," he said. "I'm going to have to get off for another call." More than six hundred COVID patients had been admitted to NewYork-Presbyterian, where Goldman is a cardiologist—he was in the process of "doing some redeployment," he said, and left the Zoom meeting.

Liu sat in her apartment on a small couch next to a mini-fridge, drinking a glass of white wine. She and her classmates were graduating a month early in order to provide a wave of reinforcements for New York City's hospitals. The ceremony lasted an hour. At the end, the faculty invited each student to offer a five-word salutation. One by one, the faces of the city's newest doctors popped up on Liu's screen, along with their messages: "Please don and doff carefully." "Healthcare is a human right." And "We're coming for you, coronavirus!"

•

Seven people on the line. "Do we have Ginnie or Robert yet?" Robert York, the editor-in-chief of the *Daily News*, asked.

"I'll Slack 'em," Ginger Adams Otis, the metro editor, said. A few minutes later, at 3:03 P.M., Ginnie Teo, the national editor, and Robert Dominguez,

a senior editor, joined the call. Nine people on the line.

"I'll get the party started," Otis said. She came to the *Daily News* in 2012, from the *Post*. "If we wanted to do only a tangentially corona story, the best one we've got going today is 'BK SHOT,'" she said, using the story's slug. Shamar Davis, a twenty-one-year-old who lived in Brownsville, Brooklyn, had been taking care of his quarantined aunt when he noticed a fight going on outside her apartment building. Davis tried to break up the fight, which led to his getting shot and killed. "We don't have a picture of the shooter," Otis said. "But we've got an interview with the aunt. And it's a very strong, emotional story.

"On the political side, you've got the big mask order from Governor Cuomo. The enforcement of this is a little bit up in the air." She went on, "It's leading the Web site. And it's the big talker."

"Have we talked to the police about what they're going to do to avoid arbitrary enforcement?" York asked. "It has the risk of being a little stop-and-frisk-ish."

"We have questions in to them," Otis replied. "I'll make sure that's on the list."

"I want to make sure that we understand what it means whenever Cuomo comes forward with an order like this," York said. "It starts to put some teeth behind it—even if they're little teeth."

"So," Eddie Glazarev, the director of print operations, said. "Do we want to do something like a 'NO SHOES, NO MASK, NO SERVICE' kind of front page tomorrow?" After the call, it would be up to Glazarev's team to create a mockup of a front page—"the wood," in tabloid-speak.

"I think that's the place to start," York said. "Or you can do something with Cuomo, some masked-man Lone Ranger thing."

"Who would be Tonto?" Otis asked.

"De Blasio," Glazarev said. "Actually, de Blasio could be Tonto's horse." Laughter. "That horse was the worst."

•

The temperature was dropping when, in the late afternoon, N.Y.P.D. officers approached a man on the corner of Fourteenth Street and Sixth Avenue. He was sitting on the sidewalk, in a patch of waning sun. The officers knew the man as Michael, and his story was always the same: he was waiting there for a car, which would take him home, to California. "I have it on order," Michael told the officers, Joseph Musquez and Erik Bunze, who are members of the Citywide Mobile Crisis Outreach Team.

The officers were accompanied by Courtney Cruise, a big guy with a faint Jamaican accent, wearing cargo pants, an N95 mask, and purple nitrile gloves. Cruise is one of twelve nurses that the N.Y.P.D. recently brought in to help officers connect the thirty-five hundred or so people who live on the city's streets to hospital care, shelter, and other services. COVID-19 was complicating these efforts. Homeless people are particularly vulnerable to the coronavirus: many have unaddressed health problems, and self-isolating is difficult to maintain on the streets. The officers were handing out masks, but the recipients usually refused to wear them, saying that they were uncomfortable or looked weird. Cruise tried hard to overcome this resistance. "The homeless, they're not stupid," he said. "They can talk."

Michael sat beneath a blanket, with an empty McDonald's coffee cup and a box of Goya crackers. Cruise reminded him that the coronavirus is highly contagious and damages the lungs, adding, "Everybody's wearing a mask now—you see?" Michael, who has alert blue eyes and a full beard, thought that it was 2005, and said that he was fifty-two (he's sixty-two), but he wasn't coughing. His breathing seemed fine. Cruise checked his pulse. Michael amiably followed Cruise's instructions to remove his Nikes, exposing his bare feet. Cruise, feeling the skin, detected no sign of fever. Officer Musquez handed him a ziplock bag containing hand sanitizer and masks. Michael tucked it away and said, "Thanks for dropping by."

In Union Square, the team met Kelvin and Eleanor, who had become friends only the previous night. Eleanor was bare-legged; she wore a long black skirt and a furry coat. When she began singing a Rita Marley song,

Chinatown.

Cruise joined her: "I wanna get high, so high." Eleanor and Kelvin finally agreed to sleep inside—the team found them beds, in separate locations. Eleanor refused a mask. "I don't have the AIDS virus," she told them.

As Eleanor and Kelvin left, in N.Y.P.D. vans, team members suddenly sprinted across the street—a man's coat was on fire. He had stuck a lit pipe into the pocket of his parka and now stood in a swirl of feathers.

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At around 5 P.M., two doctors, a nurse, and a respiratory therapist met in a

PHOTOGRAPH BY JEROME STRAUSS FOR THE NEW YORKER

corridor of an I.C.U. at Weill Cornell Medicine, then opened a door and walked into a room. Bright fluorescent lights; on the bed, a gaunt man with paper-white hair, age seventy-five. Intubated. His skin was nearly translucent. He'd been improving, and was breathing almost entirely on his own through a ventilator's tube, which snaked between his lips and down his throat.

The group gathered silently at the bedside. The man lay still and watched. He seemed to understand what was about to happen. The respiratory therapist reached with a gloved hand to open the man's lips. Using a narrow suction wand, he slowly drew mucus and saliva into a cannister mounted on the wall, already half full of brownish-green debris. The man looked into the therapist's eyes; the therapist covered the man's face with a blue absorbent pad, to prevent aerosolized virus from spraying into the room.

"One, two, three," the therapist said. He pulled the tube out in a quick, sinuous motion. The man coughed and gasped. His eyes bulged. He took a deep breath, loud in the quiet room. A nurse stepped forward, placing an oxygen mask over his nose and mouth. The man's breathing eased. Everyone looked at one another, and exhaled.

As the workday ended, Max Rose, an Afghanistan-war veteran who represents Staten Island and southern Brooklyn in Congress, was tying up loose ends. For a few weeks, he had deployed with the National Guard and led a contingent of troops from the 69th Infantry Regiment. Their mission was to help turn a psychiatric facility on Staten Island's southeast shore into a two-hundred-and-sixty-two-bed emergency COVID-19 hospital. The hospital,

designed for patients who don't require intensive care, had been put together in six days, its five floors filled with equipment and staffed with doctors, nurses, soldiers, contractors, and cleaners. Every bed needed an I.V. pole. Every room needed a surge protector. Every pod of rooms needed five shower chairs. There were access cards, computers, and Internet to set up, operating procedures to establish. A new hundred-car parking lot had been paved outside.

Rose is short, with a shaved head, square shoulders, and a drill sergeant's voice. From the windows of the new facility, he could see Staten Island University Hospital, which had been overwhelmed by COVID-19 patients. Staten Island is a borough of essential workers: nurses, bus drivers, cops, firemen, sanitation workers. Rose lives nearby, but had been spending his nights in a hotel, to protect his wife from exposure. National Guard soldiers were on duty at the ambulance station, coördinating food deliveries and distributing equipment. It was Rose's last day of deployment before returning to politics. He still had to do a clothes drop in the parking garage of his apartment building. His work with the "Fighting 69th," as Robert E. Lee supposedly dubbed the unit during the Civil War, had been "strictly operational." At one point, he had driven to Pennsylvania to pick up a supply of garbage cans. "That's not normally the way a member of Congress thinks," he said. "It'd be nice if Congress were thinking a little more like that. Operational intensity."

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Between five and six-thirty in the evening, parents arrived to pick up their kids at Bronx Collaborative High School, on the southern edge of Van Cortlandt Park. Brett Schneider, the founding principal, had been there since seven that morning. Although his school is closed, the Department of Education had chosen the building to be one of its fifty-seven Regional Enrichment Centers. The sites, which serve three meals and function as a kind of quarantine day camp, are for students whose parents are essential workers. Schneider had volunteered immediately to supervise his school's program. He knew how to get the classrooms ready for social distancing: "It's a natural extension of prepping for the SATs." At both ends of the day, a nurse takes every kid's temperature. One of the site's volunteers had been teaching step dance, emphasizing the distance between each child. They had six-feet-apart rock-paper-scissors competitions that morning, and six-feet-apart speed-walking relay races (no baton passing) that afternoon.

Schneider, who has shoulder-length black hair, was standing in a marble rotunda, just inside the school's main entrance, holding a walkie-talkie. Two of the borough's major hospitals—North Central and Montefiore—are within walking distance. One mother had just got off a ten-hour shift administering non-stop dialysis in an acute-care unit. "Lots of young people that had no previous kidney issues are needing dialysis now," she told Schneider. "The problem is these folks, if they survive, are going to have kidney damage for the rest of their lives." A woman arrived who was working a night shift in the emergency room in two hours. She had used the day to get some sleep—"so I can go to my shift energized," she said. Her son handed her a gift from his crafts class—a paper rose.

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In Central Park, the runners along the cinder track on the perimeter of what is officially called the Jacqueline Kennedy Onassis Reservoir—Mrs. Onassis lived not far from it, on Fifth Avenue, and jogged around it, too—formed a single file of dread-in-motion, appropriately watchful and spaced. Early on in the pandemic, they had moved with an almost infuriating disregard for the new reality, running, most of them maskless, in that eternal clockwork way of city runners, seeming to believe that, once started, they were on an unbreakable internal drive, like so many windup mechanical bunnies, unable to slow down, much less stop. Some small effort at social distancing had gone on, but, when a runner ahead had been going too slowly, the others, rather than adjust their pace to maintain the spacing, still tended to come zooming along, as though their legs were self-governing. This, runners will tell you, is essential to sustaining the aerobic benefits, and, generally, to being a runner.

Over time, the pace slowed. They began self-organizing, finding an entirely new way to run. The runners still wore their usual garb—the tight-fitting lower half and the loose-fitting upper half, the ugly, expensive sneakers—but

"It's my weekend with the kids."

masks and bandannas appeared. Now, from a distance, they looked less like racers and more like a frieze, a procession moving in a stately way across the beautiful screen of the West Side towers beyond. They were moping more than moving, just like the rest of us.

•

At 6:55 P.M., on the top floor of an East Village walkup, John Fredericks, a restaurant beverage director, was setting up cables and an amp on the fire escape of the apartment he shares with his wife, Karly, a designer, and their rat terrier, Mudd. Their building is near St. Stanislaus, a Polish church, and Trash and Vaudeville, the punk-rock leather-pants-and-studded-jacket emporium, whose legendary longtime manager, Jimmy Webb, had died the day before, of cancer. Near the window, Fredericks tuned his electric guitar—a teal-blue Bobkat with a Stratocaster neck. For the past three weeks, during the city's nightly cheer for health-care workers, he had been playing a Jimi Hendrix-style "Star-Spangled Banner," good and loud, for the neighborhood. He'd wanted to celebrate medical professionals; Fredericks's two brothers and his father are E.R. doctors, and Karly is pregnant.

When he began the new tradition, Fredericks said, the claps were just starting in the East Village. "The first night, somebody yelled, 'Do it again tomorrow!'" So he did, and then he kept doing it. When he skipped a night, "people were looking up at our fire escape, and they were, like, pissed." As the hour approached, he climbed out the window. Golden light from the west illuminated his hair and his teal guitar. He clapped, and others cheered from windows, fire escapes, balconies, the sidewalk. Two cars had stopped on the street below, the passengers looking up. At 7:01, Fredericks began to play.

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As the sun set, Kim Zambito, a funeral director at Sherman's Flatbush Memorial Chapel, in Midwood, Brooklyn, entered through the mortuary's back door, wearing jeans and a baseball cap. "I'm back," she said. "Where are we going to put this one?" Bodies kept coming in—a dozen by the early evening, and counting—half of them from house calls at apartments across the borough and the rest from the hospital morgues. In the parking lot, next to Zambito's van, which held the body of an eighty-three-year-old man, two hearses already contained caskets for the following day.

In the main lobby, Chris Kasler, who is fifty-four, the son and grandson of funeral directors, sat at a plastic folding table covered in death certificates. He checked the master calendar, with his mask pulled down below his nostrils. Dozens of burials were scheduled in the coming days, each annotated in a dense, inky hand listing the name of the deceased and the cemetery: twenty-two interments on Thursday, twenty on Friday. But no bodies had gone out for funerals that day—it was the end of Passover, and most of the cemeteries were closed. "It causes a backup, because the remains are still coming in," he said.

Kasler and Zambito walked down the hallway to a door with a sign that read "No Admittance." Usually, the room was reserved for embalming; they were looking for someone with an upcoming funeral to put into a casket and move to a different room, freeing up space for the latest arrival. Inside, four tables held eight bodies, some of them in scuffed orange pouches from the hospital, others in clear sleeves no thicker than garbage bags.

"Nothing here," Kasler said, checking the schedule. In the storage room next door, Sherman's refrigeration unit, which held nine more bodies, was also full. They had better luck in the chapel, a large carpeted space with wooden pews, where one of the bodies was swaddled in a white sheet. Kasler and Zambito brought in a casket on an aluminum dolly, and bent over the corpse, lifting it delicately at both ends. Kasler rolled the casket to another room, while Zambito returned to the van for the stretcher.

•

At 8:30 P.M., Dr. Heather Jones and her patient Lisa Cintron decided to go ahead with a C-section. Cintron had been at Brooklyn Methodist Hospital, in Park Slope, for two days after visiting her ob-gyn on Monday morning, wondering if her amniotic sac was leaking. It was not, but her blood pressure had been high. Since she was close to her due date, and there was an open slot at the hospital, her doctor scheduled an induction for Monday night. The process was slow. Cintron spent hours dilating, sucking on ice chips and trying to nap. She had tested negative for COVID, which was a relief: she was an operating-room I.T. specialist for Memorial Sloan Kettering Cancer Center, and she knew how common it was to be asymptomatic. She'd been working from home, taking breaks to wash and fold baby clothes and set up the nursery—dove gray, with darker gray trim, and a baseball decal with the baby's name, Christopher, on the wall. But for the first day and a half at the hospital she'd hardly slept, and she hadn't eaten anything. It was hard to relax with a mask on.

"Just think about the big picture," her husband kept telling her. "We're going to have so many stories to tell this kid." Cintron's mother walked to the hospital and stood outside, waving to her through the window. Her sister, who'd had five children at the same hospital, told her, on the phone, that she was in good hands. The nurses were attentive and cheerful. Dr. Jones, too, her dark eyes peeking out behind a face shield, was kind as she explained that Cintron was still not sufficiently dilated.

Cintron was wheeled into an operating room and hooked up to monitors—she heard how fast her heart was racing in the skitter of beeps. She was given an epidural. Her husband was allowed in, wearing a mask and gloves and a hairnet. Cintron was shaking uncontrollably, and numb from the neck down. Then she felt a hard tug, and heard crying. She still couldn't open her eyes. Her teeth were chattering. Shortly after 9:18, she heard her husband taking the baby, saying that he was a miracle.

•

As the evening shoved on, and all the surfaces were Lysoled, all the dishes

washed, dried, and stowed, and it became too hard to watch another cycle of cable news or binge-watch the latest streaming phenomenon, an apartment-bound man on the back end of middle age confronted a stack of books that were being mentioned all the time these days: Defoe, Boccaccio, Camus, the whole syllabus of plague literature. He couldn't. Instead, he picked up "The Zoo of the New," a grab-bag anthology of poems ("from Sappho to Paul Muldoon") edited by Nick Laird and Don Paterson. He opened it and, uncannily, within a few pages, landed on these lines of Auden:

> . . . Unendowed with wealth or pity,
> Little birds with scarlet legs,
> Sitting on their speckled eggs,
> Eye each flu-infected city.

He snapped the book shut and set it aside. He sent a few texts to family. He checked the refrigerator and closed it. He washed his hands.

Finally, wanting a moment that was not flu-infected, he thought about watching ESPN, which in the absence of actual sports had contrived a very exciting event: pro ballplayers, some young and bored, others retired and thickening, playing games of H-O-R-S-E in their respective back yards, often thousands of miles apart. That would be more like it.

•

After ten, in an apartment in Greenpoint, Rae Haas, a twenty-four-year-old sex worker, set up a camera on a tripod, pressed Record, and stepped naked into the shower. Rae, who uses the pronouns "they" and "them," massaged purple dye into the roots of their already violet hair and let the dye run down their body. After several minutes, they got out of the shower and took some nude selfies, and washed the dye off their hands in the sink. Later, on OnlyFans, a platform where sex workers and artists can publish content to paid subscribers, Rae would release the video. In March, the Web site saw a seventy-five-per-cent increase in new accounts.

Rae's partner was watching "The Return of Godzilla" and eating sushi in bed. Rae got in, and started texting. A man whom Rae had met at the strip club Pumps, in Williamsburg, where Rae had worked as a dancer until March, now wanted a constant stream of nude photographs. Another client wanted Rae to verbally humiliate and then coddle him. Since self-quarantine had begun in the city, Rae had noticed clients becoming more "emotionally hungry." "They're saying things like 'Hey, you didn't text me all day,' and 'Why don't you want to talk to me?'" Rae said. "Everyone's on their phones right now, but they might not realize you're texting thirty other people." Clients were also "ten times thirstier," asking more directly for the explicit sex acts they wanted to watch.

Others had ghosted Rae. "A lot of people I was talking with before the virus—a lot of them are quarantined with their wives," they said. "I've messaged them, and they'd be, like, 'I can't talk for quarantine. It's too dangerous.'" Some of Rae's clients just wanted to commiserate about their financial woes. "But I'm, like, 'Listen, if you're gonna gripe and moan about the state of the world to me, please pay me—because, same.'"

•

Captain Jackie Benton was back where he'd started at dawn: in a tugboat on the north shore of Staten Island. It was nearly eleven o'clock and a half-moon hung over Newark Bay. Its light skimmed over the empty waters of the Kill Van Kull, past the shores of Coney Island and Sandy Hook to the vast and unquarantined Atlantic. Benton had spent the day escorting container ships bearing supplies for New York—from the Narrows between Brooklyn and Staten Island, around Bergen Point to Port Elizabeth and back. Now he was docked at the McAllister yard with five other tugs. Through the windows of the wheelhouse, Benton could see them rocking in their private berths, their cabins aglow. At least two crew members would be awake on each one—checking engines, listening for dispatches, doing paperwork. Even in better times, Benton rarely left his boat. Tugs were social-distancing before it was cool, he liked to say.

A month had passed since he'd been home with his family, on the Gulf Coast of Mississippi, and the only people he'd seen in that time were his first mate, his engineer, and his deckhand. Benton, who is forty-four years old, with a mop of brown hair and a swampy drawl, has worked on boats since he was eighteen. His grandfather was a tugboat captain, his father a tugboat engineer. He has spent almost a third of his life confined to less than two thousand square feet: wheelhouse, galley, and cabin. If all those years on tugs have taught him anything, it's the blessing of a well-adjusted crew. Misery spreads faster than happiness.

Benton's tug, the Captain Brian A. McAllister, is one of the most powerful ships in the McAllister fleet, and also the nimblest. With its nearly seven-thousand-horsepower engines and azimuth propeller, it can go forward, backward, and sideways, or spin like a top on the water. On the morning of March 30th, Benton had used it to help escort the U.S.N.S. Comfort to Manhattan. Almost nine hundred feet long, the Comfort could barely squeeze into its berth, at Pier 90. The Brian pulled the stern one way while another tug pushed the bow in the other, pivoting the ship ninety degrees. Then the tugs nudged the Comfort forward, pulling back on their tethers as it eased into place. It was, Benton thought, a defining moment in the country's history. Bringing a hospital ship in for a pandemic—he didn't believe anybody had ever seen that before.

•

Laura Kolbe, an internist, was working the night shift at Lower Manhattan Hospital with Anna Dill, a doctor who had come to the city the week before. Dill and some fifty colleagues from Cayuga Medical Center, in Ithaca, had taken school buses to Manhattan, to help. Kolbe and Dill bonded over the discomforts of the N95 mask, which seemed, they concluded, to have been designed for the face of a man. The day before, New York State had reported its first decline in hospital-

izations since the pandemic began, but Kolbe and Dill worried that it was just a plateau, not a true descent. "There's a lot of weather metaphors," Dill said. "People are saying, 'This is just a breather before the second wave comes,' or 'Maybe we are in the eye of the hurricane, and that's why it's calm.'"

While relief felt premature, endless hyperarousal no longer felt sustainable. In the past few weeks, Kolbe had been reading the poetry of Zbigniew Herbert. "He had this alter ego, Mr. Cogito, who was this sort of hapless Everyman trying to navigate the bureaucracy of mid-century Poland," she said. "I've found odd comfort in poetry about various kinds of labyrinths and roadblocks. How can you continue to play the game when the rules keep changing?"

The internists were looking over a list of "watchers"—patients at risk of imminent death. All of them had COVID-19. One of the patients was homeless and had already been hospitalized; he had improved enough to be discharged to a hotel converted into a makeshift shelter, but he returned to the hospital when hotel staff found him passed out on the floor. Another watcher had been working on Wall Street on 9/11, and his lungs were failing. After arriving at the hospital, he had expressed so much anxiety that he was given an iPad to keep in his room, so that he could have virtual sessions with a psychologist. Kolbe imagined that he was thinking, "What are the chances that, for a second time, the worst will have happened and I will still pull through and walk out of this situation?"

The watcher who concerned her the most was a woman who spoke Cantonese. Every time the woman moved even slightly, her oxygen levels dipped. When Kolbe needed to communicate with her, she would walk to a part of the hospital corridor marked with green tape, indicating that it was free of biohazards, dial an interpreter phone-bank service from her cell phone, place the phone in the pocket of her scrubs, put on her protective gown, and cross to the part of the hallway demarcated by red tape, the "dirty" zone. Kolbe would try to get her pocket as close as possible to the woman's face, to allow a conversation with the interpreter, on speakerphone. Sometimes all the interpreter could hear was the sound of rustling fabric.

The woman had managed to grasp the thrust of the interpreter's message: she should not lie on her back all the time. When a person is supine for too long, lung tissue may start to collapse, and blood may pool. Every few hours, nurses turned her from her left side to her stomach, then to her right side, then to her back. When Kolbe walked into the woman's room, she said, she was touched to see her in an "odalisque position," as if she were sunbathing. A few hours later, just before midnight, she peeked into the woman's room. The woman had been rotated again. Now she was on her back, her legs crossed at the ankle. Her chest was rising and falling at an easy pace. Doctors love epithets: Murphy's sign, Battle's sign, Homans' sign. Kolbe thought about coining a new one: the Ankle sign. "Anyone with their legs crossed so neatly at the ankles must be faring reasonably well," she observed. She shut the door. ♦

Written by Rachel Aviv, Robert P. Baird, Burkhard Bilger, Jonathan Blitzer, Vinson Cunningham, William Finnegan, Tyler Foggatt, Ian Frazier, Jennifer Gonnerman, Adam Gopnik, Zach Helfand, Dhruv Khullar, Carolyn Kormann, Eric Lach, Sarah Larson, D. T. Max, Alexis Okeowo, Helen Rosner, Kelefa Sanneh, Michael Schulman, Alexandra Schwartz, Jia Tolentino, Lizzie Widdicombe, Paige Williams, and Emily Witt.

"Could we talk about something else?"

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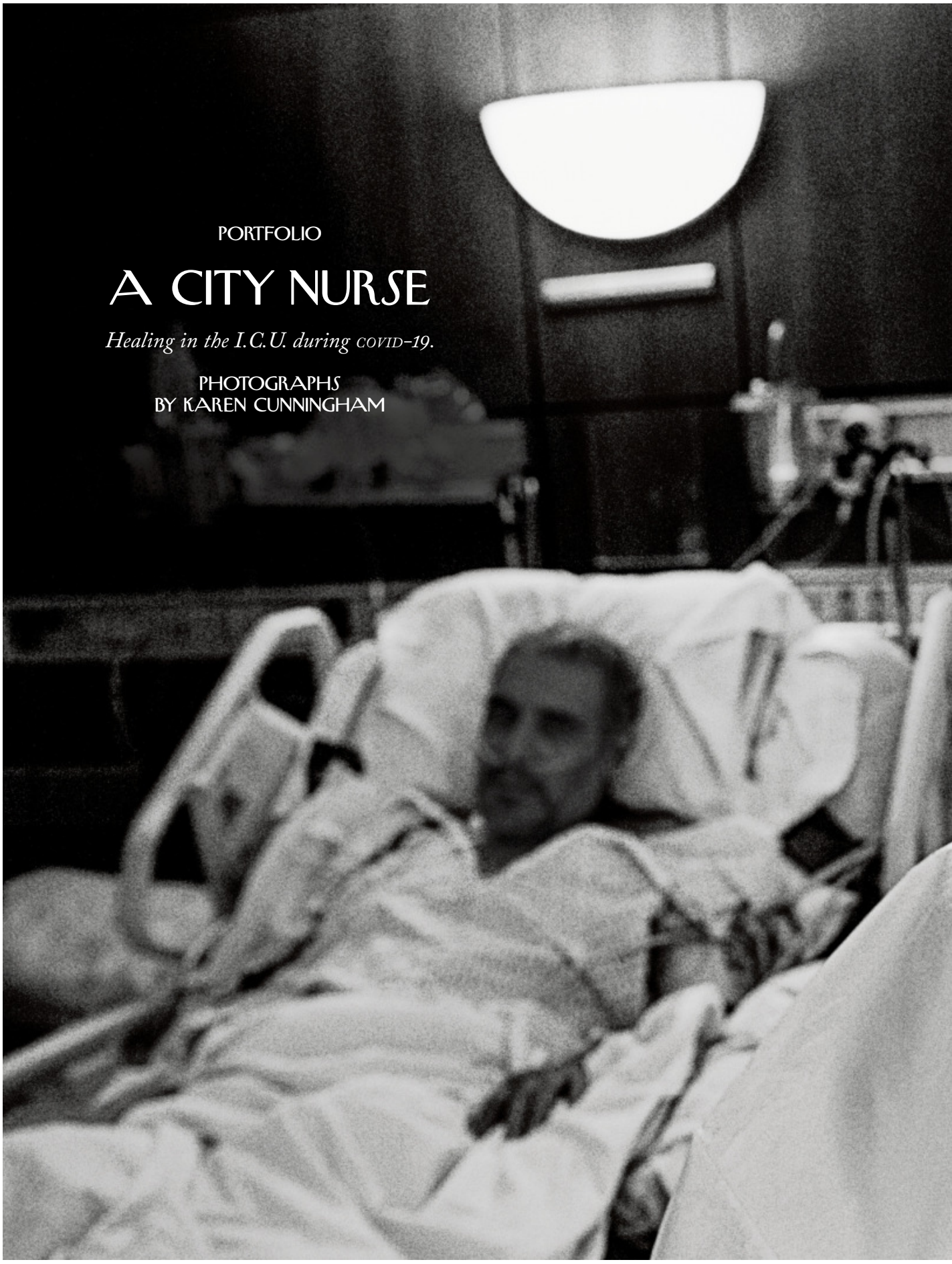


PORTFOLIO

A CITY NURSE

Healing in the I.C.U. during COVID-19.

PHOTOGRAPHS
BY KAREN CUNNINGHAM

QQ group:1067583220

Cady Chaplin is an intensive-care nurse at Lenox Hill Hospital. She just turned thirty. Her closest friend at work is Karen Cunningham, who is twenty years older and made a mid-career turn from photography to nursing. When they met, five years ago, Chaplin and Cunningham hit it off immediately. They live in the same neighborhood—South Park Slope, in Brooklyn—and often take the subway together to the hospital, which is on East Seventy-seventh Street, in Manhattan. Along the way, the two I.C.U. nurses talk about everything from the latest Tilda Swinton movie to the intricate and dangerous procedure of intubation.

These days, the days of COVID-19, Chaplin and Cunningham inhabit a twilight world that is celebrated by their fellow New Yorkers but only faintly seen. Cunningham, an admirer of the "Country Doctor" photographs that W. Eugene Smith took for *Life*, in 1948, wanted to document what was going on in the intensive-care units and got permission from the hospital to bring her camera to work. She photographed her friend over two long shifts in mid-April.

Lenox Hill normally has four I.C.U.s; now, with the coronavirus raging through the city, nearly the entire hospital is a critical-care unit. Chaplin and Cunningham's twelve-hour shifts are a blur of sickness, urgency, risk, and loss. Trapped by necessity behind their masks and face shields, inhaling their own exhalations, they experience ferocious headaches. Moments of relief are rare and fleeting. The hospital P.A. system plays "Here Comes the Sun" when a COVID-19 patient is being discharged, and the staff cheers as the gurney carrying the lucky person rolls by. All too often, though, the Beatles are interrupted by an announcement of a Code Blue: an emergency call for C.P.R. The death toll is relentless, and older doctors and nurses have told Chaplin that the only thing comparable to COVID-19 was the height of the AIDS crisis. But nothing ever equals anything else. In those days, no one was "sheltering in place." Now every patient, every colleague, every surface, every friend is a potential threat. Chaplin, whose roommate left for the relative safety of New Jersey weeks ago, comes home to solitude.

"Sometimes, after my shift, I walk in my apartment, slide down the door, and cry," she says. "After I take a shower, I can't quite figure out what it is I am supposed to be doing. Coming down from these shifts, hearing codes all day on the intercom, it's hard to get out of that fight-or-flight response. I've been eating a lot of salted black licorice." She calls friends and paces the apartment. For exercise, she shadowboxes while holding cans of chickpeas in each hand and listening to Lizzo, Lil' Kim, and Tierra Whack. Recently, Chaplin's parents drove in from Long Island and dropped off Lucy, the family's French bulldog, to keep her company. "It will be good to have another heartbeat here," she says.

Many evenings, at seven, Chaplin can hear the cheering and honking, the nightly tribute to the "essential workers" who are keeping the city alive. The sound often makes her tear up with gratitude, but she is wary when she hears platitudes about the "heroic" work of health-care professionals. She doesn't want to be glorified all of a sudden. "This is what we trained to do," she says. "This is what we do. That was true a year ago, and it will be true a year from now."

—David Remnick

"When I wear a uniform, I put it on and take on my nurse self," Cady Chaplin says. "But you lose your personal eccentricities, so I like to wear weird T-shirts underneath my scrubs, even if it's just for myself."

1985

Orthopedic residents and a physical therapist, recruited to work in intensive care during the pandemic, turn a COVID-19 patient

on his stomach so that he can breathe more easily. Patients are flipped every sixteen hours, by a team of five people.

Above: A patient receives oxygen after being taken off a ventilator.
Left: Nurse anesthetists intubate a patient, risking exposure to aerosolized virus particles.

Dr. David Butler performs an ultrasound on the lungs of a patient with acute respiratory distress, to assess the risks of intubation.

USE ONLY AS A FACE
READ PACKAGE WARNING

Chaplin cares for an intubated and sedated patient, who wears restraints to prevent the removal of the endotracheal tube.

Above: Unable to drink while wearing P.P.E., Chaplin takes a water break.
Right: Chaplin leaves the hospital. She feels "most acutely sad or anxious" at home alone.

Northwell Health
EMERGENCY
The Anne and Isidore Falk
Center for Emergency Care

The Wish for a Good Young Country Doctor

Allan Gurganus

ILLUSTRATION BY CARSON ELLIS

Most kids lose or break their toys. I curated mine.

In 1976, the University of Iowa renamed an existing history-and-literature program America Studies. It drafted me and some other merry hippie Ivy graduates to blanket the state and gather "existing folk manifestations." We plundered far-flung Salvation Army thrift stores and rural junk shops. We hunted the simple tools and dolls that our essays overinterpreted. Those startup treasures helped found my folk collection, one that's not unknown today.

Handwrought nineteenth-century artifacts were criminally cheap then. "Midwesterners don't know what they have, or *had*," we Easterners gloated after country raids.

Prior to radio, before television, savage winters spent indoors turned many German-Americans into excellent wood-carvers. Unable to afford child whimsies (even from the Sears catalogue), a farmer just whittled his brood's amusements. Those things sure lasted! Here we have a horse-drawn-farm-cart toy, scaled for one specific kid. You can still feel the father's February yearning for a warm harvest, his love for the mismatched horses hand-portrayed and for his boy, born to inherit Dobbin, Paint, and the family acreage.

These days, I'm sometimes interviewed about my collection. Lazier reporters ask me to name my most valuable find. It was actually a gift. I divide my career into two rough phases: "Toys" and "Post-Childish Things." And this—hung right over my rolltop desk—still marks the turning point between the two.

We cheerful avid youngsters, lured to Iowa City, were given five twenties a month to spend on outsider art. Our professor, born in Rome, jokingly called this "ethnographic colonialism within one's native land." His lectures were persuasive and dynamic; he was callous in the pan-gender bedding of his students, yet sensitive to how all empires fall. He'd grown up amid artistic beauty that was broken to pieces but left in place.

We set off every Friday full of caffeine and an acquisitive sleekness that sometimes passed for sexy. Wearing thrift-shop moose-motif sweaters, driving borrowed jalopies, we were cerebral hucksters out to pillage the second-flight antique shops of eastern Iowa, western Illinois. The odder our finds, the brainier we felt. Uncover some handwrought gimcrack, write an article about it, read it aloud in class, then seek publication in some journal suitably obscure. Our Roman professor stressed the long view, advising us, "*Sapete sempre che voi siete stranieri . . . in un Paese molto più strano*." And, this being a state school, he immediately translated, "Always know you are strangers . . . in a land far stranger."

We clocked many country miles during a long Friday's "picking." Toward the end of such a trek, my classmates were heading back from the western edge of Illinois, bound for Iowa City, in a borrowed Ford wagon; I followed in my overloaded Jeep. We stopped for gas and bathrooms. Then the others waved goodbye. I'd spent eighty of my allotted hundred. My haul? A rural mailbox, made in a 1946 shop class and shaped like not one or two but three Scottish terriers, two white, the middle one black, whose conjoined mouths accepted letters, parcels. A pink chintz hostess smock edged with so much nineteen-forties rickrack it looked all but Aztec. And my hands-down most ironic iconic Find of the Week: a handsomely lettered five-foot-long sign explaining, "You've Got to Be a Football Hero to Get Along with the Beautiful Girls. THEREFORE, GO TECH!"

This kind of joke was then thought "smart." And no one was more enslaved to fashionable smartness than a hyper-educated boy of twenty-six with a twenty-nine-inch waist and, so Mother always hinted, a colossal I.Q. I look back on him with a curatorial mixture of pride, amusement, and pity. I think he condescended to the very loot he intended to save then praise. (But surely that problem's built into the notion of taking a graduate degree in "self-taught artists"!)

Though tired and hungry, I felt greedy for one more twenty-dollar prize. Proud as I was of my football pep-squad board, I knew I'd not yet found this outing's "it." I imagined discovering, in every dairy barn I passed, some primitive oil portrait of Lincoln, painted when he was yet a beardless state legislator here.

My friends swore they'd save me a stool at Hamburg Inn No. 1. The blue-plate special, this being Friday, was surely fried fish. Sunset offered a limitless salmon-orange. In one farmyard, a tractor tire on its side—painted white—had been filled with soil, then white geraniums. Dusk now turned these all the colors of a campfire. Tidied fields shadowed toward something sinister. And should that huge rooster be crowing right at sundown? I sped through a pretty little town called La Verne. And, just as its propane gasworks and beauty parlor (itchily called LuAnn's House o' Hair) gave way to corn-green countryside, I spied a dangling Colonial sign whose girlish freehand promised:

> Theodosia's Antiques
> (real and imagined)
> Only Thing Reasonable Here?
> Our Prices

"Well, hell. *Some*body's thinking," I said aloud.

I aimed my Jeep toward the unlit store, which, up close, looked out of business. I'd already popped my clutch to find reverse when I flicked on my headlights, then my high beams, then braked. That cigar-store-Indian thing bent in the window? With jewelry all over it? It appeared to be either some dressmaker's dummy or perhaps a human being. Oosh, it'd definitely moved.

"Evening," I said, smiling through the door chimes' sweet-and-sour tinkling. "You must be the eponymous The-o . . ."

"Her*self*." I warranted one courtly, bitter nod.

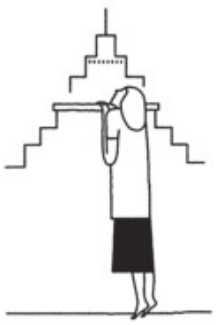
Caught hovering at her window, worried this might seem invitational, the owner must've made a fast crablike retreat to a high stool. The climb still had her panting. She presided behind an outmoded silver cash register that itself looked like a costly toy, circa 1923.

What had bent her so? Fever? Birth defect? Her spine showed the exact angle of an opened safety pin; its clasp, her hooded face. Theodosia, weighing less than ninety pounds, seemed to wear her best stuff. A county's worth of timepieces were pinned to her otherwise concave chest. Ladies' watches, some with clock faces visible, others locketed away, a few on pulleys that allowed easy consulting, quick return. Their metals glinted across her front like military decorations.

It was the day's last stop, so I quickly scanned, nose wrinkling. I sometimes imagined I could smell the hidden treasure. Where was "it"? Maybe lurking

within reach of this "it" girl. Her backbone might've been cruelly bowed, but her deep-set eyes gleamed my way, briar-sharp. Theodosia seemed one of those maimed or homely people who—feeling themselves unimprovable—make a militant point of glaring you down. Seated on high, she flaunted her unassets as a form of deficit flirting.

At that age, I still likely looked my best. (I remained ignorant of my face value, even while trading on the bargains it brought. You really notice your looks only once you've lost them.) Now barging toward the poorest-lit corner of her two-room shop, I felt "it," hiding. Ballroom chairs stacked to the ceiling. Narrow pathways corkscrewed tributes to her bent spine. Theodosia offered no chat, none of the usual jolly prying: "So, where'd you folks say you're *from*? You with the Depression-glass convention in Moline, betcha." Nothing but her alum gaze, her arms crossed over six pounds of locket clocks.



Things here did look finer than in most shops out this way. And—a good sign—her place smelled not of euphemizing potpourri but of the proper musk peculiar to some dry attic's last few centuries. And yet the major Gothic grandfather clock lacked one finial; three beautiful nineteenth-century pumpkin-colored paisley shawls had been moth dessert decades back. Nothing displayed justified her full snootiness. I did stop before a pile of *Harper's Weekly* magazines from the eighteen-sixties. Hating knowing that *she* knew, I stood scouting for Winslow Homer's war illustrations. Nothing.

Her voice scratched me from a room away. "The *toys* are in that half-timbered neo-Tudor sideboard to your right."

I asked the stale air before me, "How'd you know?"

"I've got it pretty much down to a system. Can identify all you migrating birds, boy-o. I get three of you a day in here."

"Thanks," I said, for spite.

Theodosia's toys proved overpriced, missing wheels, made in Munich or New York circa 1915, just before war claimed all such metal. I found nothing local, handmade, or heartfelt enough for my advanced urban taste.

Last thing, as I headed for the Jeep, feeling as irked as stubborn, I squatted before the clear vitrine in front of her stool. Four minutes of silence hadn't thawed her. She still emitted the nunnish hauteur of some impoverished old countess out of Chekhov.

Sunset, gold as egg yolk, now scored with value many otherwise half-worthless things. Pot lids, cufflinks, rims of chipped Venetian claret glasses.

"Hope I'm not holding up your evening plans, right here at six and all, ma'am," so ran me in faux-farmboy mode. No reply. With brooch clocks dragging down her blouse, she just sat ticking like a knitting class.

Only now—as I squatted before the glass, peering over Grover Cleveland campaign buttons and crystal bulldog inkwells—I felt observed from floor level. Beside her white shin, a face—a force—stared back at me. A head-and-shoulders portrait rested on the floor. The man depicted must've been about my age. Dark eyes above a beginner's goatee—he'd posed fastened in a black tie and a high starched collar. His face was handsome, if both blank and sad, hound-earnest.

"So what'd be *his* story?" My index finger touched cold glass. I felt then, in the knots of my stiff neck and impressionable groin, a collector's sense that he might be today's it.

Silent, she studied her fingernails. Sales technique? Orneriness? Both?

"*I asked*, Can you tell me about this sweet guy in the painting near your left foot?" Why did her not answering mount up so? Unlike in the last three shops, there was no radio playing Champaign-Urbana's classical FM. No noise out here but wind crossing her roof or the odd twist of carved wood popping in her far room. I felt foolish at the din my voice made.

But I kept staring through the glass box at this young gent's melancholy message of a face. Maybe he looked a bit like me and—being painted actual size, given the glass between us—became some sort of mirror? Maybe all bright young men, seriously questing, look a bit alike.

The picture tipped half out of its eighteen-fifties rosewood frame. The canvas showed its age. The oil-paint execution seemed able, even affectionate, if conventional; the background, solid black. But what held me was the boy's expression. Not just an invitation, almost a plea for help. I felt first *approached*, then nearly *summoned*. Didn't understand quite what I'd found, but, seeing him, I recognized some calibre of longing or emergency.

"Just want information, lady! But, why'm I even *both*ering you? As if you knew the slightest thing *about* him!" This is how one avid story "picker," holding only twenty bucks, challenges another.

She snorted finally: amused at anybody's thinking Theodosia might not keep total narrative lock on every celluloid buttonhook in her place. (Since she belonged to my grandmother's flapper generation, I'd maybe gauged her partly right: such ladies were most charming when provoked.) When Theodosia's voice at last emerged, it sounded adenoidal, dry, so "local" I felt disappointed.

"You look to be one of those ones I get in here from the grad school over to Iowa City. Printmaking department's pretty good, they say. But why would anybody waste time doing prints when you could just *paint*? Yeah, real *artistes*, you kids! You all look alike. Come out here huntin' somethin' for nothin'. From the parking lot, I knew ye. Expensive haircut wanting to play like it just grew wild that way. Wearing clothes the people in New York City wore three years back. Nosing out this far from Moline, hoping and trick us natives. You'd probably make a funny story out of me, my shop, this poor boy painted here."

Now some test would be required. Proof that I was not just another trust-fund tinhorn, condescending.

And, as I leaned nearer the glass, I could "read" her bony torso. Most of the watches clamped there told roughly the same time (within fifty minutes). But, when I scouted from left to right, four lines, top to bottom, her system started becoming clearer: the rows began with austere Federal design, chaste and "classical," until Ionic geometry blossomed, enlarging to certain manufactured over-elaborations of the eighteen-fifties, sprouting roses and leaves and fat gilt tendrils of prosperity toward a silver Nouveau calla lily, then onward to a watch mitred with onyx swallows and the chopped fan lines of the Eastlake moment, slimming again into industrial

edginess as a Deco locket put an end to time's weird progression across her chest.

"So," I tilted up and spoke over the glass. "Today you've come to work dressed as 1830 to 1930?"

She gave me her hardest look. "*Wrong*. Eighteen-thirty-*four* to nineteen-thirty-*four!* Still, for graduate work . . . You're at least the first today to 'get' my latest try."

I laughed. She smirked, and then, in her piping oboe voice, conceded in a hurry, half-mechanical, "*About* this picture you're so dead set to blunder into the story of: Around 1849, no, *in* 1849, June 4th, a sailor named Sanders Woolsey came home to La Verne from an eight-month voyage to the Far East. Sandy's ship, the John Gray, brought back tea, Canton ware, and ginger. He'd sailed into Chicago, which was then a going port, thanks to their dredging Canada's waterways. You can imagine the meal his mother and sisters fixed his first night home. Baked chicken, be my guess. And Sandy, mostlike, so full of tales: the monkeys, the pagodas, what have you. They ate that dinner at their farm three miles due east of here, more toward Matherville. And it was Sandy Woolsey who pretty well ruined us out this way. Was Sandy brought us the cholera. His poor mother and sisters would be dead in six days, along with most of three households, their nearest neighbors. Two of those homes still stand, back by the propane distributorship you passed but never noticed. A new doctor'd just arrived in town. Boy so recent to practicing medicine he had price tags still strung on his best surgical tools. . . . You think I'm exaggerating what all I got in here, do you? Think I made that up about his tools?"

"No, you clearly know your stuff. So the fellow in this picture isn't the sailor but the new town doctor, right? My only question is whether you'll need to stand up to run and fetch that doctor's bag, or have you maybe got it tucked somewhere close?"

"Look harder at me, son. I've never 'run' toward—or, comes to that, from—anything in my whole life. However, you're not *totally* stupid."

She bent, first with a broken-backed degree of inconvenience, then with visible pain. From beneath the cash register, Theodosia lifted a cardboard box intended for canned green beans. From it, she hoisted a goodly leather satchel. Brown, it was bigger than the doctors' black bags seen in movies and pharmaceutical ads. Clanking it atop her glass counter, she expertly opened its silver latch. Her eyes never abandoning mine, she now slid toward me one small saw.

Ash-wood handle, a fine blue Sheffield blade. Amputation-worthy, that heavy to the touch. And, along its cutting edge, one price tag still dangled from string. "Dollar-fifty," she read aloud. "*Then*."

This implement she whisked from me and shoved back, as the satchel dropped to the floor just beneath her stool. "Doctor's name was Frederick Markus Petrie. He'd just turned thirty. Had been in town less than three weeks when Ordinary Seaman Sandy Woolsey, twenty-one, brought sickness out here to us. Morning after his homecoming feast, the boy begged to stay in bed till nine. By noon, admitted he was pretty sickly. First, the sailor's older sisters tried treating him. They were proud girls, skilled in home arts. Glad, I guess, to finally lay eyes on the boy who'd been so far away so long.

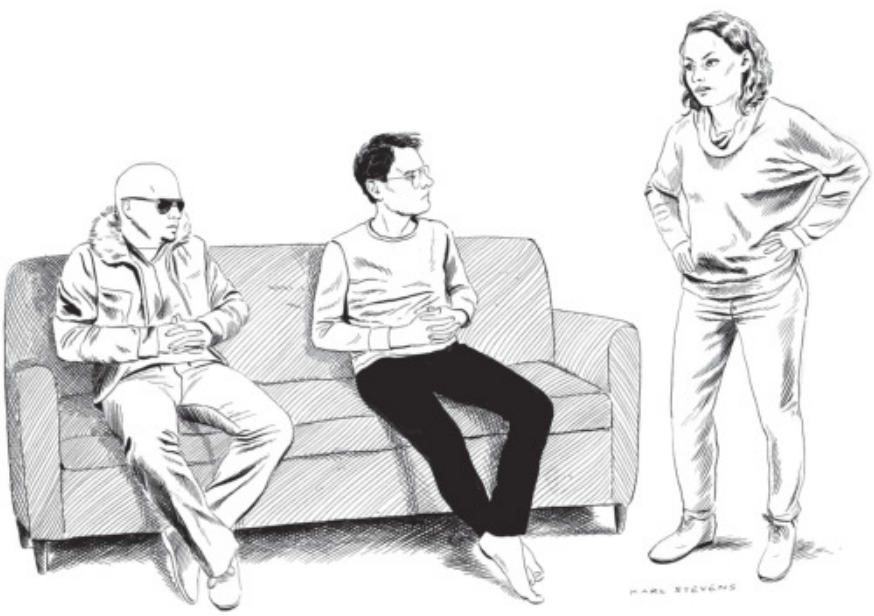
"Before the Civil War, we were even more backward a little place, being out this far from Kewanee. And just the idea of a local boy getting to sail clear to China and home without being drowned, well, a certain kind of fame must've hooked onto that fellow. And hadn't he brought his mother, to dress up her plain farm mantel, one of those ivory carvings with little worlds inside other little worlds and all shaped from one hunk of tusk? I have that in back, though it's not cheap."

"I've seen plenty of those. Please, go on."

Now we seemed in this together, serious evening drawing down hard around us. Opening a box of kitchen matches, Theodosia lit one candle.

"Pretty soon," she continued, " 'a little feverish' turns more toward 'diarrhea.' And then their bringing another basin becomes 'Maybe too much for us. Send for Doc Eaton.' But old Eaton, he'd just retired, see? And there was only that recent graduate, so new he yet boarded with Hester Brinsley, and was still out looking for some rental of his own.

"They say the eldest Woolsey girl, which'd be Dorothea, found the boy doctor out this way, having just paid his first month's rent on a little house not an eighth of a mile back toward the Coal Valley turnoff. Dorothea rushes in, says, 'We've got something. At home, we tried and take care of it, but Sandy's having something bad to where we . . .' and fainted. She had raced out here so fast, see. Her horse, a nag, was lathered. So there stands our young Dr. Markus Petrie. He'd best get prepared. Him not even all-the-way unpacked. And having to replace old Doc Eaton that everybody loved. Because Eaton'd do everything you wanted and never tell another living soul about it. Girls in trouble used to troop out here on the



"But I don't want our marriage to be featuring Pitbull."

train clear from Chicago, stay in Hester Brinsley's pretty rooms, and she'd look in on them for the day before and after, till they appeared strong enough to climb back on that train alone. (Eaton did his little operations right at Brinsley's boarding house after dark, leaving his buggy out of sight in Hester's barn, we heard, with her getting a small cut, so to speak, out of every lost child.)

"But Eaton had lately grown too shaky to even fake acting able, being so up in years. And here's this new boy, Petrie. They'd advised all the young fellows graduating from state med school to grow facial hair—that'd make a kid look older, so's people would trust him more. Important, trust. Anyways, young Petrie, mustache and silly new goatee, helps the sailor's sister rise up. He ties her horse behind his new-leased phaeton and a rental bay from Brinsley's stable. Petrie walks in, and here is the Woolseys' parlor strewn with fine red-and-gold silks that Sandy's just brought home, cloth still tossed everywhere and . . . no, I *don't* have those in back, since somebody careless left them in direct sun and they pretty much fell to pieces. But Petrie goes in the room, and there are basins set all round the iron bed, and the poor mother, burning up herself, is working hard, washing a naked boy, who's embarrassed and, you can see he knows it, losing his life at both ends. This going to be too much for you?"

"Nothing is too much for me. *Yet*, I mean. And this? Is the . . . portrait of that very doctor, you say?"

"Didn't say. Getting to that. But answer me this—you think you're so smart—how did young Markus Petrie *know* it was cholera and from halfway cross the room? Hmm?"

I shook my head one sideways swipe. (Never contradict or upstage your teller. Besides, I hadn't a clue.)

"Because *in* the bowls, mixing bowls and pans pressed into service to spare the home's one good mattress, the doctor saw 'rice stool.'"

"Which is . . ."

"Which is where the person has already been so emptied of food that nothing but what's clear is left to come out, and here's the cholera part: it's only clear broth but with little white bits of dissolving intestines that *look* like rice and float just like rice."

"A trip home from the Orient with rice stools."

"That's it. But, of course, what happened, the sailor was already near to dead, and his sisters and mother went soon after, and then it was the two neighboring farms downhill of their groundwater and all that scrubbing and suds the brave Woolsey women loosed on that poor boy's leavings, then let seep into the soil and stream downhill. Back in Chicago, the disease was going wild, folks falling by the hundreds. Eighteen-forty-nine, nobody knew the word 'bacteria.' Pasteur still hardly more than a student, if my dates are right. Their sad idea of a cure? Mustard plasters, hot as you could stand, then 'bleed' the patient to calm him good. No, up Chicago way? The panic eventually got so bad, town fathers voted to pump in drinking water, not from that little latrine Chicago River downtown but from clear cold Lake Michigan. Officials were that desperate, and, for once, the bigwigs got it right. But *they* had money and city ways. Out here? Our folks, well, we only just had Petrie.

"That young doctor was so new among us he'd not made arrangements to get his laundry done. And yet already Markus was giving us whatever we were going to get of hope. All of us were strangers to him, all. Looking after mortally sick people you love, that is hard enough. (I should know.) But to get some address in writing that's on a street you don't know how to find, even in a town as tiny as La Verne, and to walk in there and discover another whole family puking and voiding in plain view?

"They were so grateful there was somebody *to* send for. And, when he did turn up, Markus was a fine looker, with a deep voice. Sober and polite and right out of an accredited Illinois school—well, it reassured. Little beard, such dark eyes. And with a plain way that out this far means real skill. No wonder the worship started! Even old Doc Eaton couldn't have got such a sudden following. Old Eaton, see, people still tipped a hat to him downtown. Hadn't he delivered most of the folks in sight? But they knew about his serving those family-way city girls, and about certain other mistakes he'd buried. Plus, there was a drug habit he got into real bad at the end. Strange, somebody like that waiting so late to find a vice. Like some delayed vacation for him to retire into. Old Eaton soon drifted into falling asleep while standing there mid-operation, hands'd fly up all of a sudden palsied, so the mayor and a committee had sent, just in time, for Petrie, fresh as paint out of university. Fourth in his class, too.

"But, even if Doc Petrie had come during a normal healthy season around here, he woulda been quite a standout. I mean, unmarried, fine-looking as still shows here, if in a darker-than-Swedish kind of way—but that would've been romantic to all these towheaded braided girls for miles hereabouts.

"He kept asking locals to please, please just call him Mark, but 'doctor' was a godly word by then. And those folks of ours that *hadn't* yet come down with the cholera? Instead of hiding from Petrie, they took to bringing him fresh-dug beets from out their gardens and sending their daughters over with the food. Matchmaking! And here it was the middle of our terrible epidemic year. I guess it was superstition. Because the more folks got sick the healthier and taller did that boy look. He'd turn up at church, and, my mother's mother told me, they clapped. Dr. Petrie, white shirt, black tie, black suit like you see here, he walked into the Lutheran chapel and the whole place, choir and sourpuss preacher and all, applauded. . . . It made him stay away, of course. Man never set foot in there again. And he'd only come into their sanctuary hoping to find a little support from On High, a little quiet, relief from farm folks that were turning gray and becoming a puddle at both ends. See, that's what the cholera bug does to you, I guess. *Liquefies*. It's awful catching. And the doctor was soon the only person brave or fool enough to duck under the orange quarantine ropes, ignoring warning signs he himself had nailed to the doors of those farmhouses worst hit.

"Locals were real glad Doc Petrie was up on the techniques of 1849 from our best state school. Taxpayer money

THE END OF POETRY

Enough of osseous and chickadee and sunflower
and snowshoes, maple and seeds, samara and shoot,
enough chiaroscuro, enough of thus and prophecy
and the stoic farmer and faith and our father and tis
of thee, enough of bosom and bud, skin and god
not forgetting and star bodies and frozen birds,
enough of the will to go on and not go on or how
a certain light does a certain thing, enough
of the kneeling and the rising and the looking
inward and the looking up, enough of the gun,
the drama, and the acquaintance's suicide, the long-lost
letter on the dresser, enough of the longing and
the ego and the obliteration of ego, enough
of the mother and the child and the father and the child
and enough of the pointing to the world, weary
and desperate, enough of the brutal and the border,
enough of can you see me, can you hear me, enough
I am human, enough I am alone and I am desperate,
enough of the animal saving me, enough of the high
water, enough sorrow, enough of the air and its ease,
I am asking you to touch me.

—Ada Limón

well spent. But, listen, there *were* no techniques, except don't wash your ricey basins in the river, where the poisons will drift, which was exactly what they went out and did, poor fools. And too soon the Mengers and the Hurleys, then the Hopwoods and the Mortensens, they all come down with it. 'Come down,' you hear me? Going back like this, I fall right into my grandmother's voice. Now, after suchlike buildup, you might think there's not much of a story to the rest of it. But what's mainly inter-resting is such madness as grew up around *him* during the worst part of our plague. All La Verne left enough bread puddings and bushelled fruit outside his house to where he couldn't open the front door of a morning. Had to go out around the back to see what gifts had him so locked in. Doc kept busy, writing off for help, him so new to the practice and out here in this throwback sickness. But most doctors elsewhere had their own hands full. Still, Petrie made newspaper suggestions that the *Bugle* printed and passed along. He listed do's and don'ts, most of them a scared boy's purest guesswork. Mainly meant to keep folks' panic down. And, at the end, he added how important it was that people stick by each other through the worst. The doctor wrote how civilization depends on nobody going untended.

"And then Petrie 'strongly suggested' that families gather into bands to insure that no matter how bad it got somebody'd stay put and tend those left alive. And local tribes, especially those with farmland adjoining, they went along with him on this. And, oh, but that sure saved many a local. Later, they gave Doc Petrie all the credit. His idea: the Health Alliances, they were called, and that still holds. Nowadays, they're mainly used for tornado-watch and swapping Christmas gifts. Community granges, like, but they're still called the Petrie Alliances.

"Was a real warm June, that June, which was bad for spreading the cholera but good, you know, for how stuff grows in soil this black. Young girls brought him masses of zinnias, and they got into his house, and folks heard tell that more than one threw herself at him. What *he* did, who knows. And yet you kind of hope he at least tried something with a few of our better-looking ones that were spunky. They weren't all peaches, trust me.

"Petrie would be home in his rental, hurting his hands with carbolic acid, trying to burn the infection off them, washing up, and shucking off his pants and throwing hot water and soap even over his good shoes, standing there alone wearing nothing but his shirttails, and more girls would come in. Folks swear that for weeks there were virgins turning up at all hours of the night. And their parents right aware of where the daughters'd gone and what for at this ungodly hour. Guess I can still hear them: 'Now, daughter, don't you be letting that Grace Cunningham get a jump on Doc ahead of you. Why, sister, when this is over, after all he's done to help our county, he can stand for governor, sure. They say Boss Brinsley alone gave him two hundred-dollar gold pieces when their spoiled littlest girl pulled through. But brush back your hair off your face, why don't you. Show those features. Grace Cunningham is not a patch on anybody pretty as you.' Oh, but it was a pagan time, 1849, I swear to God.

"Now, *this*," and here she awkwardly angled off the stool, finally scooping up the painting and clamping its lower edge against the glass counter between us. "This portrait of Petrie came to me, it'd be just five weeks back. Been hanging up in the public library on the square since our town fathers commissioned his portrait, eighteen and fifty."

Theodosia finally placed into my hands the oil painting. His image was pulling away from old yellow pine stretchers still marked as coming from a shop in Cedar Rapids.

"This painting, see, was done from a daguerreotype they got his mother to send. Talented local lady painted it, one Miss Beech, a teacher who'd been at the church the few times he set foot in there before they applauded him off. He still kept introducing himself as Mark—maybe it was what his mother called him. But he'd got too important to ever be that casual around.

"Well, one day 'bout four weeks into the worst of it, he was out at the Brinsleys' again (mighty demanding, the Brinsleys), and their little daughter they thought he'd saved and had paid him so well for saving, she was down and looking but poorly again. Petrie bends over her asleep, and shakes his head and says to her rich parents, 'I just don't like her *color*.' And instead of agreeing or

mumbling thanks, instead, both the Brinsleys point. Just point at him, saying, 'What—*her* color? Pot comin' in here callin' our dear little kettle black!' Folks claim he walked toward a mirror was hanging in her room, and when he saw it plain, him already sweating bad, they say young Markus threw up across the new rose-patterned wallpaper, like he'd been waiting for the permission of others' noticing. Boy must've guessed already. He apologized for making a mess and at once excused himself and stepped into the hall so's he could buggy home, clean up. At their fine front door with stained glass cut in it, those Brinsleys gave him a mighty wide berth and wouldn't shake Petrie's acid-black hand. Oh, no, not now. His mistake was in ever letting people *see* him sick. Especially the Brinsleys, born talking, every one.

"Soon, people said as how a native son so fine as Sandy Woolsey could *not* have brought this much badness down on us. No, more likely Petrie had. Look at your calendar. Didn't it all turn up about a week or two after this standoffish young doctor did? And aren't you always reading in the papers about certain firemen that set the fires themselves so they'll get the headlines and the bonuses? Well? Local rumor added as how young Markus Petrie's own case of the cholera—what with his having been around those many others—his *degree* of sick, it had to run you twelve to fifty times worse, way more potent than others'. Some said his ran up to seventy-five times more catching! And that's why they, one by one, stopped leaving food, and now the girls were nowhere to be seen. And even the dying quit sending for Petrie. Which meant, since he lived out here most of three miles from town and so alone, nobody knew what all exactly was happening to him. Might could be getting stronger? Or going down toward worse? Did he have sufficient food, so forth, what with his being a bachelor and all? Well, let's say the interest in him tapered right off. Even as the number of cases did. People said more than ever that he'd been the agent of it, spreading it amongst us, then trying to take credit for being so kind. New here, after all, and, in the end, what'd we really *know* about strangers? Coming in here like a rooster among our fine local white hens and turning girls' heads.

"Finally, with no word, no sight of him, about ten days in, they found his horse broken loose and chewing the neighbor lady's roses. That's when our mayor that'd helped hire Petrie, he organized a 'fact-finding expedition,' the local paper called it. One of the wives packed a few sandwiches as a false reason for their visit. Petrie had at least put together the Health Alliances. You had to give the boy that. They found him in the back room of his house. He'd tied himself into his own bed with the last of his orange quarantine rope, hog-tied himself, owing to the shakes, maybe. Or could be just to keep himself from rushing off in search of others, at the end. All La Verne had hoped for a good young country doctor, and maybe that was his last wish, too.

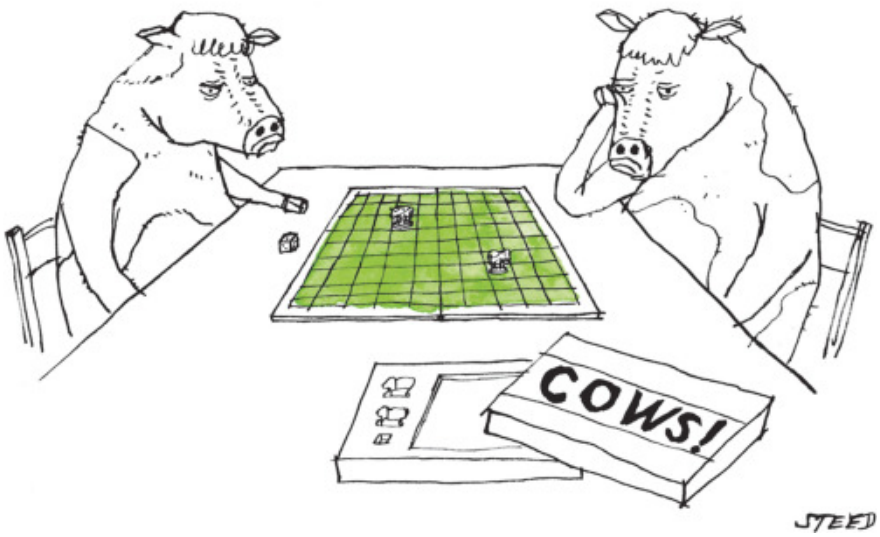
"My guess is he'd tied himself not so much to keep from going for help, because who could have helped him? No, more because, even if you've lived your life alone, you want to at least perish within the sight and sound of other folks. Don't you?

"So, once the local sick either started improving or went to white ash on the pyres they'd put out past the fairground to contain it—once the farm folks' worst fear ended, and they'd unpinned his Petrie Alliance newspaper rules off their kitchen walls—they did what they'll always do when they've forsaken somebody who dies helping them, someone they failed to honor while he was still alive. Why, the doctor looked different, now that their health was back. Boss Brinsley's pet daughter had recovered, after all. And the child, if no one else did, recalled how the handsome doc's house calls had saved her. So the Brinsleys held a late ceremony and put up the oil-portrait money, and in two months, why, they'd made a hero out of our abandoned Frederick Markus Petrie, M.D. Hung his picture in the library. And he became the new country doctor, the boy that'd singlehandedly saved most of 1849's La Verne! That is who-all's face you got ahold of there, young man."

It'd grown so dark—even with her candle guttering—that I had to clutch his picture nearer. Canvas all but touched my nose. So I sniffed it then, front and back. Though the photographic image that had inspired the painting had perhaps been taken during graduation, young Petrie's features already seemed to foresee some complex fate ahead. And yet his eyes looked half-willing to accept whatever medieval destiny awaited his modern medicine out here in these godforsaken wheat fields.

"But," I asked a little too loud, "who authorized taking his portrait down? After what? A hundred and twenty-odd years? Why'd your town park him out here and order you to sell him?"

" 'Cause nobody remembers anymore! Nobody but me and the daughter of the youngest of those Mortensens he saved. And even she claimed the library just couldn't keep him, since that last remodel made the place real 'contemporary.' The young hotshot librarian phoned. Calls me Teddy, which is all they've ever thought to call me hereabouts. She explained how, with their new yellow walls and mirrors, young Petrie here, he sure looks 'kinda gloomy.' Her very words, son. Besides, his pic-



ture needs some restoring. So, well, here he is, on consignment-like. 'For whatever he brings.' *Brings!*

"Funny, I'm out here near the little house Doc paid his first two months' rent on. They've shipped him right back to his old neighborhood where he hardly even got unpacked. But what does it *smell* like? 'Cause I admire you thought to nose that out. See, *my* sense of smell, I lost most of it to childhood scarlet fever. Was six months old, just so much cartilage. Those fever spikes rolled through me, messed me up pretty good, as you can see. So, not too much of a sniffer left. One sense shy of a load."

I held it near my nose again. "The picture and Petrie, I guess, smell of tar and maybe day-old bacon grease, likely cooked over a wood fire. Dust and maybe linseed oil. Also, I swear, of Bactine! Funny, there's something medicinal about it. Though this was surely painted months after they buried him."

"Burned him, you mean. And all those odors still in there, huh? You don't say." Theodosia finally fell silent. Slouching as if exhausted by some marathon.

Then I risked it. Told her I didn't suppose she'd willingly part with him, even considering his slightly flaking condition. But I did vow, hand in the air, that no caretaker would ever hold onto him longer or be surer not to let Markus and his story get lost the next time around.

I admitted, "All I have is twenty dollars cash. But, if you'll trust me to send you a personal check, it won't bounce, I swear."

"Now you know his story, don't you?"

I nodded.

"And after my giving you that? You figure I could take a penny for him? Why, that'd be like . . . like sellin' some other human. No, it's yours. *He* is. Was hoping you might notice it when you come in here hunting toys. Toys aren't the half of it. They're the way we want it to be, not how things turn out. And, well, you found it. But your smelling it's what put you over the top, boy. Made me know you'd guard him pretty good. Might could you'll someday even remember to talk about him. La Verne never deserved fine young Petrie here. Did not deserve him, alive or dead."

I stared at his picture, then again at the lady armored in cricket-clicking watches. "You *saw* him," she nodded. "Most my customers come ringing through that door like elephant herds hunting Depression glass. Right name for the stuff, the way it gets *me* down. Take him. In La Verne, if you act too kind or smart or interested in much, they'll make you pay. And pay. Yeah, take him quick. 'Fore I need to hold him back behind the counter with me. *Get*, or else I'll change my mind, boy. And not to worry—I've saved enough to where, in six months, there'll be no more winters for Theodosia, who tends to fall on ice. Moving to San Diego. Seventy-two degrees year-round, they tell me. Now, skedaddle. Get him finally clear of us. Misery loves company, but help me not be selfish at the end! *Go!*"

So I lifted it and, flinching through her door chimes, yelled my thanks and ran it to the Jeep. Felt like a hostage rescue. With his frame propped in my passenger seat, I snapped the safety belt across him at a kindly angle that'd leave his dark eyes free.

And then, around midnight, in a Jeep full of junk from earlier, we achieved escape velocity. The night country smelled of growing corn. It seemed as though I was saving him from the town he'd saved, then paid for saving. Once we passed the Iowa line, we had moonlight all the way.

Until that night, toys had been my specialty. But, as I started guarding Petrie, I somehow put aside childish things. The homemade treasures that've attracted me since? They're more about work than play. They are what my small collection is best known for. It now boasts six hundred and ten portraits of anonymous working American citizens, from 1710 to 1937. They are all shown on the job, in their aprons or welding goggles, manning their forges, minding their pharmacies, curating their pyramids of wholesale pumpkins. Some of these are masterpieces. Most were painted by artists just as unknown as their subjects.

His portrait still presides over my desk here. Even a hundred and seventy years after he died alone, the doctor's presence feels half-healing. It seems we've recognized and befriended each other across time.

Money-wise, of course, he's far from the collection's most valuable item. But, in case of fire, I'd save him first.

Four decades into our cohabitation, I found a better frame for him. As I was transferring the painting, an old calling card slid out from under the wooden stretcher. Some librarian's fine penmanship attested, "Dr. Frederick M. Petrie, b. 1819–d. 1849, saved town, cholera. Caught it."

I'd never thought to Google him. But what first came alive onscreen? His original 1849 La Verne *Bugle* proposal for surviving a plague. Those neighborhood organizations he helped found are still in use, his bulletins yet considered a model of improvised public health. So I gladly give good young Petrie the last word:

> Fulfilling the duties assigned by fellow-citizens in acknowledgment of the Epidemic Cholera now being so sadly among us, I, the Committee's newest member, submit the following Report, June 11, 18 and 49. Grateful that, after being somewhat modified, it was unanimously adopted. To wit:
>
> I recommend to my neighbors the following program intended as defensive and preparatory:
>
> —Please undertake a strict course of temperance and regularity in diet, drink, and exercise. I urge on you, friends, the spare use of meats, vegetables, and fruit, and, more particularly, if the bowels be to any degree disordered, avoid fresh pork, spiritous liquors, green corn, cucumbers, and melons.
>
> —Should any sickness of the stomach occur while the disease be locally prevailing, consider it the commencement of a disease that may easily be cured but, if neglected, might kill infants and our elderly.
>
> —Go to bed between blankets and be warmly covered. This course has, in other communities, proved sufficient to heal in almost all cases when commenced in time.
>
> —Be assured, my new friends, all such steps, if administered early, prevent death in most known cases. The singular symptom likeliest to undo us is an interfering terror.
>
> —I further observe, with Committee support, that our La Verne citizens will be exposed to less danger by calmly remaining in their homes than by flying from them. I therefore urge families to take care in securing Good Help, attending to each other's arising needs. Friends will, in their hour of need, stand fast, not flee.
>
> —Stay we must, however strong be our sinful urge to solely save ourselves. Certainly, our very notion of civilization depends on our group determination that not one among us, even the most solitary and least loved, be left untended.
>
> In this and all things, looking toward our healthier future, I remain your most respectful neighbor,
>
> Frederick Markus Petrie, M.D.
>
> —Mark ♦

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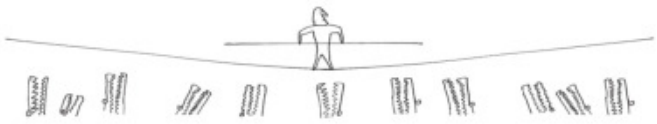
The author on his interest in epidemics.



A CRITIC AT LARGE

BLOOD ON THE GREEN

Kent State and the war that never ended.

BY JILL LEPORE

Phillip Lafayette Gibbs met Dale Adams when they were in high school, in Ripley, Mississippi, a town best known as the home of William Faulkner's great-grandfather, who ran a slave plantation, fought in the Mexican-American War, raised troops that joined the Confederate Army, wrote a best-selling mystery about a murder on a steamboat, shot a man to death and got away with it, and was elected to the Mississippi legislature. He was killed before he could take his seat, but that seat would have been two hundred miles away in the state capitol, in Jackson, a city named for Andrew Jackson, who ran a slave plantation, fought in the War of 1812, was famous for killing Indians, shot a man to death and got away with it, and was elected President of the United States. Phillip Gibbs's father and Dale Adams's father had both been sharecroppers: they came from families who had been held as slaves by families like the Jacksons and the Faulkners, by force of arms.

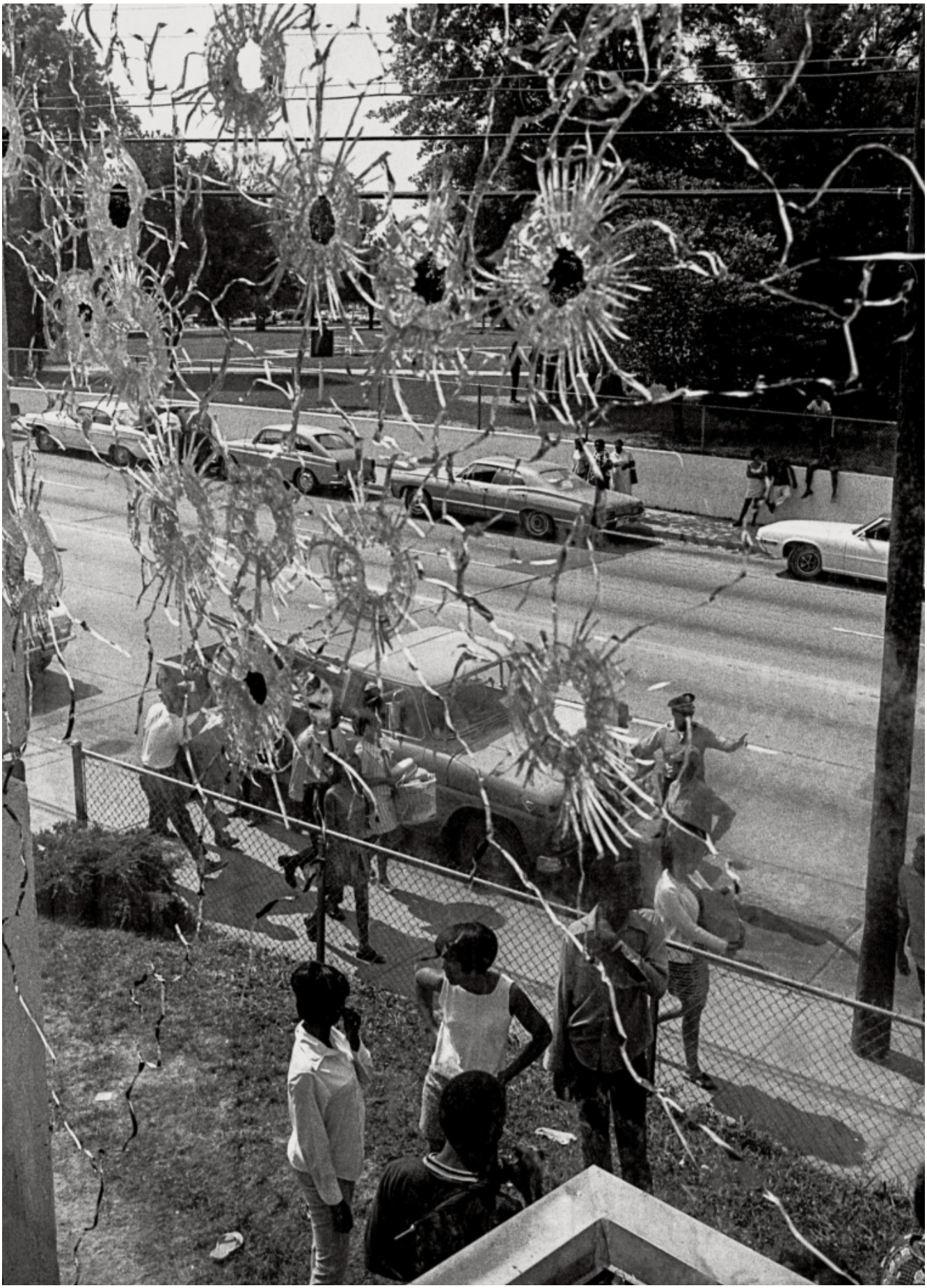
In 1967, after Gibbs and Adams started dating, he'd take her out to the movies in a car that he borrowed from his uncle, a car with no key; he had to jam a screwdriver into the ignition to start it up. After Dale got pregnant, they were married, at his sister's house. They named the baby Phillip, Jr.; Gibbs called him his little man. Gibbs went to Jackson State, a historically black college, and majored in political science. In 1970, his junior year, Gibbs decided that he'd like to study law at Howard when he graduated. He was opposed to the war in Vietnam, but he was also giving some thought to joining the Air Force, because that way, at least, he could provide his family with a decent apartment. "I really don't want to go to the air force but I want you and my man to be staying with me," he wrote to Dale, after she and the baby had moved back home to Ripley to save money.

The Jackson State campus was divided by a four-lane road called Lynch Street, named for Mississippi's first black congressman, John Roy Lynch, who was elected during Reconstruction, in 1872, though a lot of people thought that the street honored another Lynch, the slaveholding judge whose name became a verb. It was on Lynch Street, just after midnight, on May 15, 1970, that policemen in riot gear shot and killed Phillip Gibbs. He was twenty-one. In a barrage—they fired more than a hundred and fifty rounds in twenty-eight seconds—they also fatally shot a seventeen-year-old high-school student named James Earl Green, who was walking down the street on his way home from work. Buckshot and broken glass wounded a dozen more students, including women watching from the windows of their dormitory, Alexander Hall. Phillip Gibbs's sister lived in that dormitory.

That night, as the historian Nancy K. Bristow recounts in "Steeped in the Blood of Racism: Black Power, Law and Order, and the 1970 Shootings at Jackson State College" (Oxford), students at Jackson State had been out on Lynch Street protesting, and young men from the neighborhood had been throwing rocks and setting a truck on fire, partly because of something that had happened ten days before and more than nine hundred miles away: at Kent State University, the Ohio National Guard had shot and killed four students and wounded nine more. They fired as many as sixty-seven shots in thirteen seconds. "Four dead in Ohio," Crosby, Stills, Nash & Young would sing, in a ballad that became an anthem. "Shot some more in Jackson," the Steve Miller Band sang, in 1970, in the "Jackson-Kent Blues." In the days between the shootings at Kent State and Jackson State, police in Augusta, Georgia, killed six unarmed black men, shot in the back, during riots triggered by the death of a teenager who had been tortured while in police custody. At a march, on May 19th, protesters decorated coffins with signs: 2 Killed in Jackson, 4 Killed in Kent, 6 Killed in Augusta.

Two, plus four, plus six, plus more. In 1967, near Jackson State, police killed a twenty-two-year-old civil-rights activist—shot him in the back and in the back of the head—after the Mississippi National Guard had been called in to quell student demonstrations over concerns that ranged from police brutality to the Vietnam War. And, in 1968, at South Carolina State, police fatally shot three students and wounded dozens more, in the first mass police shooting to take place on an American college campus. Four dead in Ohio? It's time for a new tally.

This spring marks the fiftieth anniversary of the Kent State shootings, an occasion explored in Derf Backderf's deeply researched and gut-wrenching graphic nonfiction novel, "Kent State: Four Dead in Ohio" (forthcoming from Abrams ComicArts). Backderf was ten years old in 1970, growing up outside Kent; the book opens with him riding



BETTMANN / GETTY; OPPOSITE: SERGE BLOCH

Ten days after the Kent State shootings, policemen killed two young black men on the campus of Jackson State, in Mississippi.

in the passenger seat of his mother's car, reading *Mad*, and then watching Richard Nixon on television. "Kent State" reads, in the beginning, like a very clever college-newspaper comic strip—not unlike early "Doonesbury," which débuted that same year—featuring the ordinary lives of four undergraduates, Allison Krause, Jeff Miller, Sandy Scheuer, and Bill Schroeder, their roommate problems, their love lives, their stressy phone calls with their parents, and their fury about the war. As the violence intensifies, Backderf's drawings grow darker and more cinematic: the intimate, moody panels of smart, young, good people, muddling through the inanity and ferocity of American politics yield to black-backed panels of institutional buildings, with the people around them saying completely crazy things, then to explosive splash pages of soldiers, their guns locked and loaded, and, finally, to a two-page spread of those fateful thirteen seconds: "BOOM!" "BANG!" "BANG! BANG! POW!"

Backderf's publisher has billed his book as telling "the untold story of the Kent State shootings," but the terrible story of what happened at Kent State on May 4, 1970, has been told many times before, including by an extraordinary fleet of reporters and writers who turned up on campus while the blood was still wet on the pavement. Joe Eszterhas and Michael Roberts, staff writers for the Cleveland *Plain Dealer,* both of whom had reported from Vietnam, reached campus within forty-five minutes of the first shot—they rushed in to cover the growing campus unrest—and stayed for three months to report "Thirteen Seconds: Confrontation at Kent State," their swiftly published book. Eszterhas went on to become a prominent screenwriter. Philip Caputo, a twenty-eight-year-old Chicago *Tribune* reporter who later won a Pulitzer Prize and wrote a best-selling memoir about his service in Vietnam, was driving to Kent State, from the Cleveland airport, when the news about the shots came over the radio. "I remember stepping on the gas," he writes, in the introduction to "13 Seconds: A Look Back at the Kent State Shootings," a series of reflections on his earlier reporting. "I entered the picture late," the best-selling novelist James A. Michener wrote. "I arrived by car in early August." He stayed for months. The *Reader's Digest* had hired him to write "Kent State: What Happened and Why," providing him with reams of research from on-the-spot reporters. The political commentator I. F. Stone cranked out a short book—really, a long essay—titled "The Killings at Kent State: How Murder Went Unpunished." So many books were published about the shooting, so fast, that when NBC's "Today" show featured their authors the result was a screaming match. Before introducing them, the host, Hugh Downs, gave a grave, concise, newsman's account of the sequence of events:

> On Thursday, April 30th, 1970, President Richard Nixon announced that American forces were moving into Cambodia. On Friday, May 1st, students at Kent State University in Kent, Ohio, expressed their displeasure at the President's announcement. That night, there was violence in the streets of Kent. On Saturday, May 2nd, the R.O.T.C. building was burned, National Guardsmen moved onto the campus. On Sunday, May 3rd, students and Guardsmen traded insults, rocks, and tear gas. On Monday, May 4th, the confrontations continued. There was marching and counter-marching. Students hurled rocks and Guardsmen chased students, firing tear gas. The Guardsmen pursued the students up an area called Blanket Hill. Some Guardsmen pointed their rifles menacingly. And suddenly, it happened.

Nearly all accounts of what happened at Kent State begin the way the "Today" show did, on April 30, 1970, when, in a televised address, Nixon announced that the United States had sent troops into Cambodia, even though, only ten days earlier, he had announced the withdrawal of a hundred and fifty thousand troops from Vietnam. Students on college campuses had been protesting the war since 1965, beginning with teach-ins at the University of Michigan. By 1970, it had seemed as though U.S. involvement in the war in Vietnam was finally winding down; now, with the news of the invasion of Cambodia, it was winding back up. Nixon, who had campaigned on a promise to restore law and order, warned Americans to brace for protest. "My fellow Americans, we live in an age of anarchy, both abroad and at home," he said. "Even here in the United States, great universities are being systematically destroyed."

Nixon's Cambodia speech led to anti-war protests at hundreds of colleges across the country. Campus leaders called for a National Student Strike. Borrowing from the Black Power movement, they used a black fist as its symbol. The number of campuses involved grew by twenty a day. Most demonstrations were peaceful, but others were violent, even terrifying. In some places, including Kent, students rioted, smashing shop windows, pelting cars, setting fires, and throwing firebombs. In Ohio, the mayor of Kent asked the governor to send in the National Guard.

Nixon hated the student protesters as much in private as he did in public. "You see these bums, you know, blow-

"I was <u>not</u> huffing and puffing—it's just allergies."

ing up the campuses," he said the day after the Cambodia speech. He had long urged a hard line on student protesters: antiwar protesters, civil-rights activists, all of them. So had Ronald Reagan, who ran for governor of California in 1966 on a promise to bring law and order to Berkeley, a campus he described as "a rallying point for communists and a center for sexual misconduct." In 1969, he ordered the California Highway Patrol to clear out a vacant lot near the Berkeley campus which student and local volunteers had turned into a park. Patrolmen fired shots, killing one student, and injuring more than a hundred. Reagan called in the National Guard. Weeks before Nixon's Cambodia speech stirred up still more protest, Reagan, running for reëlection, said that he was ready for a fight. "If it takes a bloodbath," he said, "let's get it over with."

May 4, 1970, the day of that bloodbath, fell on a Monday. The Guardsmen at Kent State started firing not long after noon, while students were crossing campus; there seems to be some chance that they mistook the students spilling out of buildings for an act of aggression, when, actually, they were leaving classes. Bill Schroeder, a sophomore, was an R.O.T.C. student. "He didn't like Vietnam and Cambodia but if he had to go to Vietnam," his roommate said later, "he would have gone." Schroeder was walking to class when he was shot in the back. Jeff Miller, a junior from Plainview, Long Island, hated the war, and went out to join the protest; he was shot in the mouth. Sandy Scheuer had been training to become a speech therapist. Shot in the neck, she bled to death. Allison Krause, a freshman honor student from outside Pittsburgh, was about to transfer. She'd refused to join groups like Students for a Democratic Society, which, by 1969, had become increasingly violent. (Her father told a reporter that she had called them "a bunch of finks.") But she became outraged when the National Guard occupied the campus. On a final exam, she had tried to answer the question "What is the point of history?" "Dates and facts are not enough to show what happened in the past," she wrote. "It is necessary to analyze and delve into the human side of history to come up with the truth." She had lost her naïveté, she told her professor, in a reflection that she wrote at the end of the exam: "I don't take the books as 'the law' anymore." Her professor wrote back, "A happy thing—that." She had gone out to protest the invasion of Cambodia.

Thirteen seconds later, with four students on the ground, the shooting seemed likely to start up again, until Glenn Frank, a middle-aged geology professor, grabbed a megaphone. "Sit down, please!" he shouted at the students, his voice frantic, desperate. "I am begging you right now. If you don't disperse right now, they're going to move in, and it can only be a slaughter. Would you please listen to me? Jesus Christ, I don't want to be a part of this!" Finally, the students sat down.

Students elsewhere stood up. Campuses across the country erupted. Demonstrations took place in four out of every five colleges and universities. One in five simply shut down, including the entire University of California system, and sent their students home. Students marched on administration buildings, they burned more buildings, they firebombed, they threw Molotov cocktails. And they marched on Washington. This magazine declared it "the most critical week this nation has endured in more than a century."

But one of the most violent protests was a counterprotest, as David Paul Kuhn points out in his riveting book "The Hardhat Riot: Nixon, New York City, and the Dawn of the White Working-Class Revolution" (Oxford). For all the talk of tragedy in the nation's newspapers and magazines, a majority of Americans blamed the students. They'd had it with those protests: the destruction of property, the squandering of an education. Hundreds of thousands of U.S. servicemen were fighting in Vietnam, young people who hadn't dodged the draft; most of them came from white, blue-collar families. Kent State students were shattering shop windows and burying the Constitution and telling National Guardsmen to go fuck themselves? Four dead in Ohio? Fifty thousand servicemen had already died in Vietnam, and more were dying every day. (It's worth noting that both Trump and Biden avoided the draft: Trump said he had bone spurs; Biden got five student deferments and later cited asthma.)

On May 7th, three days after the shooting at Kent State, as many as five thousand students thronged the Manhattan funeral service of Jeff Miller. As the mourners marched through the city, scattered groups of construction workers, up on girders, threw beer cans at them. The mayor, John Lindsay, had declared May 8th a "day of reflection," and closed the city's public schools. A thousand college students turned up for an antiwar rally, hoping to shut down Wall Street: "One-two-three-four. We don't want your fuckin' war! Two-four-six-eight. We don't want your fascist state!" They were met by construction workers, many of whom had come down from the Twin Towers and not a few of whom had buried their soldier sons, or their neighbors' sons, in flag-draped coffins.

Joe Kelly, six feet four and from Staten Island, was working on building the elevators at the World Trade Center. He said he'd reached his "boiling point," and headed over to the protest during his lunch hour, joining hundreds of workers in yellow, red, and blue hard hats, some carrying American flags, many chanting, "Hey, hey, whaddya say? We support the U.S.A.!" and "Love it or leave it!" Kelly thought the students looked "un-American." The students called the hardhats "motherfucking fascists." Kelly punched a kid who, he said, swung at him and knocked the kid down. While police officers looked on, more or less approvingly, the workers attacked the protesters, clubbing them with tools, kicking them as they lay on the ground. Some of the policemen dragged hippies out of the fight by their hair. Even some Wall Street guys, in suits and ties, joined the hardhats. Lindsay had called for the flag at City Hall to be lowered to half-mast. The construction workers swarmed the building and forced city workers to raise the flag back up. Other workers chased undergraduates from Pace University back to campus, breaking into a building on which students had draped a white banner that read "VIETNAM? CAMBODIA? KENT STATE? WHAT NEXT?" Pace was next. Students

tried to barricade the buildings while construction workers broke windows and leaped inside, shouting, "Kill those long-haired bastards!"

Two weeks later, at the White House, Nixon received a memo from his aide Patrick Buchanan. "A group of construction workers came up Wall Street and beat the living hell out of some demonstrators who were desecrating the American flag," Buchanan reported. "The most insane suggestion I have heard about here in recent days was to the effect that we should somehow go prosecute the hardhats to win favor with the kiddies." He advised the opposite tack: abandon the kiddies, and court the hardhats. The day before, a hundred and fifty thousand New York construction workers, teamsters, and longshoremen marched through the streets of the city. The *Daily News* called it a "PARADE FOR NIXON." They were trying to make America great again. Nixon invited the march's leaders to the White House, where they gave hard hats as a gift. Nixon was well on his way to becoming the hero of the white working class, men and women, but especially men, who left the Democratic Party for the G.O.P. "These, quite candidly, are *our people now*," Buchanan told Nixon. They were Nixon's, and they were Reagan's, and they are Trump's.

On May 7th, the day of Jeff Miller's funeral in New York, signs were posted all over the Jackson State campus:

> Be Concerned
> Meet in Front The Dining Hall
> At 2:00 P.M. Today
> To Discuss Cambodia.

A small crowd showed up. Two days later, only about a dozen Jackson State students went to a rally in downtown Jackson. One student leader recalled, "The kids at Kent State had become second-class niggers, so they had to go." They had found out what he and his classmates had known their whole lives: what happens when the police think of you as black.

It's not clear that Phillip Gibbs went to any of those rallies, but, in high school, in Ripley, he'd joined sit-ins aiming to integrate the town swimming pool, an ice-cream shop, and the Dixie Theatre. In "Lynch Street: The May 1970 Slayings at Jackson State College," published in 1988, Tim Spofford argued that Jackson State had never been a particularly political campus. But Jackson had in fact been very much in the fray of the civil-rights, antiwar, and Black Power movements. In 1961, students at Mississippi's Tougaloo College—another historically black school—had held a sit-in in an attempt to desegregate the Municipal Library, in nearby Jackson. After the Tougaloo students were arrested, students at Jackson State marched down Lynch Street, toward the jail where the Tougaloo protesters were being held; they were stopped by police with tear gas, billy clubs, and attack dogs. Two years later, the civil-rights activist Medgar Evers was assassinated at his home in Jackson. The next year, his brother, Charles Evers, who had replaced Medgar as head of the state's N.A.A.C.P., tried to calm campus protesters after a female student was nearly killed by a hit-and-run as she crossed Lynch Street. Police came and shot at the students, wounding three. The local press was not inclined to support the protesters. "Did you hear about the new NAACP doll?" a columnist for the Jackson *Daily News* had asked. "You wind it up and it screams, 'police brutality.'"

A lot of students at Jackson State couldn't afford to get involved. In the wake of the 1970 shootings, one student said, "Mothers are out scrubbing floors for white folks and sending these kids to Jackson State. 'You're doin' better than I ever did,' they tell the kids. 'You better stay outta that mess.'"

Still, by May 13, 1970, five days after the Hardhat Riot in New York, there were plans, or at least rumors about plans, to burn the Jackson State R.O.T.C. building. That night, students threw rocks at cars driving down Lynch Street. "Havin' nigger trouble on Lynch Street?" one squad car asked over the police radio. When students started setting fires, the governor called in the Mississippi National Guard, but, before they could arrive, the all-white Mississippi Highway Patrol turned up. Jackson State's president, an alumnus, met with students the next morning; they told him that they were angry about Cambodia, the draft, and Kent State, and also about the curfew for students in the women's dormitory and the lack of a pedestrian bridge over Lynch Street. He called the police chief and asked him to close Lynch Street overnight; the police chief initially refused.

That night, a rumor spread that Charles Evers, who was now the mayor of Fayette, Mississippi, and who had a daughter at Jackson State, had been shot. As the National Guard had done at Kent State, the authorities at Jackson State insisted that the police and patrolmen had identified a sniper. (No evidence has ever corroborated these claims.) A few minutes after midnight, law-enforcement officers began firing. In the morning, the college president closed the campus and sent the students home.

Time called what happened in Mississippi "Kent State II." After Phillip Gibbs's wife, Dale, learned that her husband had been killed, she found out she was pregnant, with her second child. This one, Demetrius, graduated from Jackson State in 1995, and has had a hard time explaining what happened to the father he never knew. "If I try to tell people about the shootings at Jackson State, they don't know about it," he has said. "They don't know until I say, 'Kent State.'"

In "Steeped in the Blood of Racism," Bristow insists, "Jackson State was not another Kent State." Bristow blames white liberals for failing to understand the shootings at Jackson State as a legacy of the Jim Crow South's brutal regime of state violence, and for deciding, instead, that what happened at Jackson State was just like what happened at Kent State. She faults the Beach Boys, for instance, for a track on their 1971 album, "Surf's Up"; even though they had noted the specific racial nature of the events at Jackson State ("The violence spread down South to where Jackson State brothers / Learned not to say nasty things about Southern policemen's mothers"), these lines appeared in a song called "Student Demonstration Time," which, Bristow laments, "told listeners the Jackson State shootings belonged in a litany of crises on college campuses."

That was more or less the verdict of the President's Commission on Campus Unrest, appointed by Nixon in June, 1970. It wasn't a bunch of whitewashers. The nine-person commission, chaired by William Scranton, the former Republican governor of Pennsylvania, included the president of Howard University; the first African-American justice to sit on the Louisiana Supreme Court; a black mem-

ber of the Harvard Society of Fellows studying the history of racism; and, as its only active military member, the first African-American Air Force general, a former commander of the Tuskegee Airmen. After holding public hearings in Kent and Jackson, the Scranton Commission concluded that most campus unrest had been peaceful, that it was a response to racial inequality and the war in Vietnam, that it wasn't mayhem, and, also, that it wasn't unusual. "It is not so much the unrest of the past half-dozen years that is exceptional as it is the quiet of the 20 years which preceded them," the report asserted, noting that Americans who attended college from the nineteen-forties to the early nineteen-sixties had formed a "silent generation." As far as the commission was concerned, the modern era of campus unrest began on February 1, 1960, when four students from North Carolina Agricultural and Technical College sat down at a "Whites Only" lunch counter in Greensboro. Nixon rejected the report.

It's this argument—that white and black student protesters can be understood to have been involved in a single movement, for racial justice, free speech, and peace, led by the fight for civil rights—that Bristow, bizarrely, rejects as a white-liberal fantasy. If it was a fantasy, it was also Martin Luther King, Jr.,'s fantasy. In 1967, after King first spoke out against the war in Vietnam, people asked him why, saying, "Peace and civil rights don't mix." Their response saddened him, he said, because it suggested that "they do not know the world in which they live."

A question, lately, is: Which world do Americans remember? The Scranton Commission concluded that the shootings at both Kent State and Jackson State had been unjustified. It did not, however, urge the prosecution of the shooters, something that a lot of people who wrote books about Kent State urged but that James Michener opposed. "It would be an exercise in futility," he said during his commencement address at Kent State, in December, 1970. In his five-hundred-page book, "Kent State: What Happened and Why," Michener blamed the protesters and, especially, outside radical agitators, who, like the snipers, seem to have been mostly an invention of the authorities. Joe Eszterhas and Michael Roberts called Michener's book "a Magical Mystery Tour of innuendo, half-truth, carefully-structured quotation and anonymous attribution." They concluded that the National Guardsmen, exhausted, poorly trained, and badly led, had committed murder. "There was death, but not murder," Michener insisted.

"So we'll film the show without an audience, and edit in the gasps of wonder later."

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A week short of the first anniversary of the shootings at Kent State, Michener, Eszterhas, Roberts, and I. F. Stone appeared on that panel on the "Today" show. "Hugh—obviously, this will be a free-swinging affair," Downs's producer noted, in the show overview. By the end of the hour, the guests had nearly come to blows. "Jim, don't you believe in American justice?" Eszterhas asked, after Michener continued to insist that a federal grand-jury investigation would be a waste of time, because no jury would convict the Guardsmen. "How do you know that?" Roberts asked. Michener: "Because it has been the history throughout our country. The law doesn't run its course." At this point, even Downs jumped in: "Aren't you in effect indicting the American system of justice?" Stone tried to read out loud from a statement by Kent students. Michener shouted him down: "I won't let you read that."

That spring, the New York *Times* ran a long investigative piece, "JACKSON STATE A YEAR AFTER," by Stephan Lesher, a legal-affairs correspondent. Alexander Hall was still pockmarked with bullet holes. Lynch Street had been closed to traffic, but with a tall chain-link fence, which made the campus feel like a prison. "No one has been punished," Lesher wrote. "No one is going to be":

> No one—least of all Jackson's blacks—expected a different outcome. . . . Yet, there is a barely perceptible chance that the Jackson State violence will be remembered as more than simply another brutal chapter in Mississippi's disregard for black humanity.

No one has been punished, and no one is going to be. Except everyone's been punished, the whole nation has suffered, and will keep on suffering, until the shooting stops. That will take a political settlement, a peace, that the nation has needed for a half century. And it will require a history that can account for Greensboro, and Berkeley, and Kent State, and the Hardhats, and Jackson State, all at once. King made a prediction: "If we do not act, we shall surely be dragged down the long, dark, and shameful corridors of time reserved for those who possess power without compassion, might without morality, and strength without sight." It turns out that the corridor of time is longer than he could have known. ♦

THE THINKER'S THINKER

We're still catching up with one of the greatest minds of the last century.

BY ANTHONY GOTTLIEB

Frank Ramsey not only died young but lived too early, or so it can seem.

"The world will never know what has happened—what a light has gone out," the belletrist Lytton Strachey, a member of London's Bloomsbury literary set, wrote to a friend on January 19, 1930. Frank Ramsey, a lecturer in mathematics at Cambridge University, had died that day at the age of twenty-six, probably from a liver infection that he may have picked up during a swim in the River Cam. "There was something of Newton about him," Strachey continued. "The ease and majesty of the thought—the gentleness of the temperament."

Dons at Cambridge had known for a while that there was a sort of marvel in their midst: Ramsey made his mark soon after his arrival as an undergraduate at Newton's old college, Trinity, in 1920. He was picked at the age of eighteen to produce the English translation of Ludwig Wittgenstein's "Tractatus Logico-Philosophicus," the most talked-about philosophy book of the time; two years later, he published a critique of it in the leading philosophy journal in English, *Mind*. G. E. Moore, the journal's editor, who had been lecturing at Cambridge for a decade before Ramsey turned up, confessed that he was "distinctly nervous" when this first-year student was in the audience, because he was "very much cleverer than I was." John Maynard Keynes was one of several Cambridge economists who deferred to the undergraduate Ramsey's judgment and intellectual prowess.

When Ramsey later published a paper about rates of saving, Keynes called it "one of the most remarkable contributions to mathematical economics ever made." Its most controversial idea was that the well-being of future generations should be given the same weight as that of the present one. Discounting the interests of future people, Ramsey wrote, is "ethically indefensible and arises merely from the weakness of the imagination." In the wake of the Great Depression, economists had more pressing concerns; only decades later did the paper's enormous impact arrive. And so it went with most of Ramsey's work. His contribution to pure mathematics was tucked away inside a paper on something else. It consisted of two theorems that he used to investigate the procedures for determining the validity of logical formulas. More than forty years after they were published, these two tools became the basis of a branch of mathematics known as Ramsey theory, which analyzes order and disorder. (As an Oxford mathematician, Martin Gould, has explained, Ramsey theory tells us, for instance, that among any six users of Facebook there will always be either a trio of mutual friends or a trio in which none are friends.)

Ramsey not only died young but lived too early, or so it can seem. He did little to advertise the importance of his ideas, and his modesty did not help. He was not particularly impressed with himself—he thought he was rather lazy. At the same time, the speed with which his mind worked sometimes left a blur on the page. The prominent American philosopher Donald Davidson was one of several thinkers to experience what he dubbed "the Ramsey effect." You'd make a thrilling breakthrough only to find that Ramsey had got there first.

There was also the problem of Wittgenstein, whose looming example and cultlike following distracted attention from Ramsey's ideas for decades. But Ramsey rose again. Economists now study Ramsey pricing; mathematicians

ILLUSTRATION BY ELEANOR TAYLOR

ponder Ramsey numbers. Philosophers talk about Ramsey sentences, Ramseyfication, and the Ramsey test. Not a few scholars believe that there are Ramseyan seams still to mine.

Philosophers sometimes play the game of imagining how twentieth-century thought might have been different if Ramsey had survived and his ideas had caught on earlier. That exercise has become more entertaining with the publication of the first full biography of him, "Frank Ramsey: A Sheer Excess of Powers" (Oxford), by Cheryl Misak, a philosophy professor at the University of Toronto. Drawing on family papers and records of interviews conducted four decades ago for a biography that was never written, Misak tells a more colorful story than one might have thought possible so long after such a short life ended.

Ramsey's father, Arthur, claimed that Frank, his eldest child, learned to read almost as soon as he could talk. His political sense was precocious, too. One day, little Frank told his mother, Agnes, that his younger brother, Michael, was, unfortunately, a conservative:

> You see, I asked him, "Michael are you a liberal or a conservative?" And he said "What does that mean?" And I said "Do you want to make things better by changing them or do you want to keep things as they are?" And he said—"I want to keep things." So he must be a conservative.

The two brothers later diverged in religious matters as well. Frank was an atheist by the age of thirteen; Michael entered the Anglican Church and became the Archbishop of Canterbury.

By the last year of Frank's school days, he was apparently consuming books about economics, politics, physics, logic, and other subjects at a rate of almost one a day. On the holidays, he learned German, so that he could read some volumes of mathematics and philosophy in their original language. In his aptitude for math, he followed his father, a Cambridge mathematician and the author of textbooks in math and physics. But Frank's temperament—he became known for his jovial spirits and loud, infectious laugh—was in marked contrast to that of his father, who was less notable for his academic work than for his sulkiness, quarrels, and rigidity. An obituary notice in the records of Magdalene College, where Arthur Ramsey was second-in-command for twenty-two years, described his rule as "austere." In childhood, Frank's way of dealing with his father's foul moods was to slip calmly out of the room whenever the going got rough. Perhaps it was this pacific ease that, later in life, enabled Ramsey to cope better than most with Wittgenstein's frequent fits of tormented umbrage.

At a time when few women went to university, Agnes Ramsey studied history at Oxford, and also attended the logic lectures of Charles Dodgson (better known as Lewis Carroll). She had been among the little girls whom Dodgson liked to take boating. More progressive than her husband, Agnes was an activist for left-wing and feminist causes. Frank was similarly inclined; at school, he was seen as an "ardent Bolshevik." At university, he became involved in local politics and was a keen, though undoctrinaire, member of the Socialist Society.

The Ramseys were part of an intellectual aristocracy, in which Frank was comfortable from a young age. After his first meeting with Keynes, in Cambridge, Ramsey recorded that he found him "very pleasant"; on a walk, they had talked about the history of economics, the lamentable state of probability theory, and the difficulty of writing. Ramsey was seventeen at the time; Keynes was advising the League of Nations and the Bank of England, and lunching with Winston Churchill.

In his final year of secondary school, Ramsey decided to focus on pure mathematics, which is what he would earn his degree in, teach, and use as a tool. But philosophy was always what gripped him most. At school, he had read Bertrand Russell's "The Principles of Mathematics," which argued for the "logicist" view that mathematical truths and concepts can be derived from logical ones. Much of Ramsey's early technical work in philosophy built on Russell's logicist ideas and sorted through their ramifications. For one thing, he improved a theory of Russell's that had dealt with self-referential paradoxes. (One famous example concerns a barber who shaves all those, and only those, who do not shave themselves. Does he shave himself?)

Ramsey was also an enthusiastic, though not uncritical, admirer of Wittgenstein's "Tractatus"—a book that Wittgenstein, who first arrived in Cambridge to work with Russell in 1911, completed seven years later, as a soldier in the Austro-Hungarian Army interned in an Italian P.O.W. camp. The "Tractatus" argued that philosophical problems are the result of misunderstanding the logic of language. By revealing its real logic, Wittgenstein believed, he had solved them all. His account of logic enthralled Ramsey, who, in 1921, was recruited to translate the book into English.

A few months after his graduation, in 1923, Ramsey spent a fortnight in Austria, and grilled Wittgenstein about the "Tractatus." The next year, in March, Ramsey returned and spent six months in Vienna. Wittgenstein's youngest sister, Gretl Stonborough, took Ramsey under her wing, and he dined every week in her "baroque palace," with its "vast staircase and innumerable reception rooms," as he excitedly wrote home. They went to parties and to the opera. Ramsey had not known how immensely rich the family was. (Ludwig lived very simply: he had given all his money to some of his siblings after their father died.) Stonborough's elder son, Tommy, who was studying mathematics at Cambridge, once said that it seemed as if mathematics were a part of Ramsey's body, which he used without thinking, like his hands.

Ramsey was eager to discuss philosophy with Wittgenstein, but this time there was another reason for his visit, too. Ramsey wanted to be psychoanalyzed: he was anxious about sex and had been suffering from an "unhappy passion for a married woman," as he put it in a letter to Wittgenstein. Keynes once observed that Ramsey's simplicity and directness could be almost alarming. Ramsey, in his journals, noted down an exchange with the woman concerned, who was a close family friend: "Margaret, will you fuck with me?" he asked one day. She replied, "Do you think once would make

any difference?" Ramsey seems to have believed that it would, and the matter depressed him, on and off, for two years.

In Vienna, he was treated by Theodor Reik, one of Freud's first pupils. Initially, Ramsey found the sessions unpleasant and he was sometimes bored by so much talk about himself. He lent Reik a copy of the "Tractatus," and was annoyed when Reik declared that its author must have some sort of compulsion neurosis. But after six months he told his parents that he found Reik "jolly clever," and that being analyzed was likely to improve his work. Even the foundations of mathematics could be illuminated by psychoanalysis, Ramsey thought: guarding against one's emotional biases would make it easier to get a clearer view of the truth. Ramsey returned to Cambridge in October, 1924, and evidently considered himself cured. Meanwhile, Reik told a friend of Ramsey's that there had never been much wrong with him.

Ramsey, taking up a fellowship at Keynes's college, King's, began lecturing on mathematics. Tall and increasingly round, he had a lumbering grace, and acquitted himself well at lawn tennis; a friend, writing in her diary, described a broad face that "always seems ready to break into a wide smile." He fell in love with Lettice Baker, a spirited woman five years his senior, who had excelled in science and philosophy as a Cambridge undergraduate and was working at the university's psychology laboratories. They were married in 1925, just after an odd episode during a summer party at Keynes's country place.

Several Bloomsbury figures were there, including Virginia Woolf and Keynes's new wife, a Russian ballerina, Lydia Lopokova. Unfortunately, Wittgenstein was, too. Lydia made the mistake of remarking, "What a beautiful tree," presumably too casually, whereupon Wittgenstein glared and demanded, "What do you mean?" and she burst into tears. Wittgenstein also became annoyed with Ramsey, who took issue when Wittgenstein declared Freud "morally deficient." Although Ramsey didn't bear grudges, the two men had no contact for four years, except for a distinctly cool exchange of letters in 1927 about the logic of "=."

In love and full of ideas, Ramsey said in early 1925, "I find, just now at least, the world a pleasant and exciting place." This was in a talk he gave to the Apostles, a select and venerable Cambridge discussion club. Ramsey's main topic that evening was whether there was anything left for such clubs to talk about. The rise of science and the fading of religion meant that the old questions were becoming "either technical or ridiculous," or so Ramsey argued. He half seriously suggested that conversation, except among experts, was now just a matter of saying how one felt and comparing notes with others. But he ended with a twist. Some might find the world an unpleasant place, yet he had reason on his side—not because any facts supported him but because a sunny attitude did one more good. "It is pleasanter to be thrilled than to be depressed, and not merely pleasanter but better for all one's activities."

There was a broader philosophical picture behind his humor. He was attracted by the idea that beliefs of all sorts were best understood in terms of their consequences. He called this "pragmatism," following the American philosopher C. S. Peirce, who died in 1914. Ramsey took the essence of pragmatism to be that "the meaning of a sentence is to be defined by reference to the actions to which asserting it would lead, or, more vaguely still, by its possible causes and effects. Of this I feel certain." Part of "the essence of any belief," he later wrote, is that "we deduce from it, and act on it in a certain way."

In 1926, Ramsey composed a long paper about truth and probability which looked at the effects of what he called "partial beliefs"—that is, of people's judgments of probability. This may have been his most influential work. It ingeniously used the bets one would make in hypothetical situations to measure how firmly one believes a proposition and how much one wants something, and thus laid the foundations of what are now known as decision theory and the subjective theory of probability.

Ramsey hoped to turn his essay about truth and probability into a book, which he worked on in the late twenties, but during this time he also produced two articles for *The Economic Journal*, which was edited by Keynes. One was the article on savings—Ramsey mentioned to Keynes that it was "much easier to concentrate on than philosophy"—and the other was about tax, and ultimately no less consequential. Its key proposal is that, given certain conditions, the rates of sales taxes should be set in such a way that the production of each taxed commodity falls by the same proportion. The tax article, like the savings one, eventually became the basis of a subfield of economics concerned with "optimal taxation," and changed the way economists thought about public finance.

When Wittgenstein returned to Cambridge, early in 1929, Ramsey was eager to resume their philosophical talks, and it seems that Wittgenstein was as well. He moved in with Ramsey and Lettice until he found his own place, and the two men had intensive discussions throughout Ramsey's last year. In a letter from this time, Keynes wrote to his wife that Wittgenstein had come to dinner and was "more 'normal' in every way than I have ever known him. One woman at last has succeeded in soothing the fierceness of the savage brute: Lettice Ramsey."

Misak thinks that Frank Ramsey had a transformative effect on Wittgenstein at this time, too. She argues that it was Ramsey's talks with him in 1929 that turned the Wittgenstein of the "Tractatus" into the Wittgenstein of the "Philosophical Investigations," a summation of his mature work that was published, posthumously, in 1953.

In the thirties, Wittgenstein moved away from the formal logical system of his "Tractatus" and toward meandering explorations of the purposes to which language is put—the meaning of a word is, as he argued in his later work, often just its use. He was, in Misak's account, adopting the sort of pragmatism that Ramsey had taken up. In the preface to his "Investigations," Wittgenstein certainly credited Ramsey for helping him to realize "grave mistakes" in the "Tractatus." But he claimed to be even more indebted to

Piero Sraffa, a Cambridge economist. Too little is known about Wittgenstein's conversations with either man to shed much light on his later thought. Besides, Wittgenstein always developed his own idiosyncratic take on the influences he absorbed: if Ramsey's views went in, you can be sure that they would not be Ramsey's when they came out.

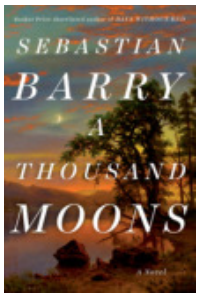
After Ramsey's death, Lettice earned money as a photographer, which led to audacious adventures in Cambodia and up the scaffolding of King's College Chapel. She once told a friend that she had been tempted to have an affair with the impossible Wittgenstein, which would have been her biggest jape of all. Lettice and Wittgenstein stayed on friendly terms after Ramsey died, until one day she threw out his old bathmat and, outraged, he cut her off. As she remarked, he made "a moral issue out of absolutely everything."

Ramsey's temperament could not have been more different. Keynes wrote that Ramsey's common sense and practicality reminded him of the eighteenth-century Scottish philosopher David Hume. And, like Hume, he was plump, jolly, and fond of cards. One member of the Bloomsbury set recounted a poker night with Ramsey: "Frank, with the guffaws of a hippopotamus and terrible mathematical calculations, got all our money from us."

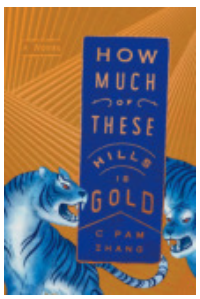
It was not just a matter of girth and gaiety: there were philosophical parallels with Hume, too. The Scotsman wrote that the human mind "has a great propensity to spread itself on external objects"—that is, to mistake its own activities for features of reality. This was a theme of Ramsey's work. Hume's idea is what Ramsey was getting at when he wrote, in his last year, that there are many kinds of sentences that we think state facts about the world but that are really just expressions of our attitudes.

Nobody will know how far Ramsey might have taken this idea, or any other, if he had survived. Statements about what would have happened if things had been different are what Ramsey called "unfulfilled" conditionals. They express an attitude, he said, but do not correspond to any reality. ♦

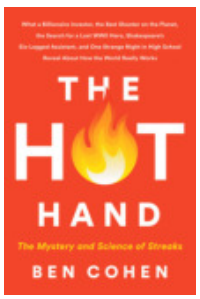
BRIEFLY NOTED



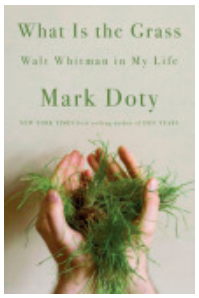
A Thousand Moons, *by Sebastian Barry (Viking).* This spare, lyrical sequel to "Days Without End" takes place in the backwoods of Tennessee, a state scarred by the Civil War. Winona, a young Lakota woman, lives in a community that is prejudiced against her race and her sex, yet she finds fulfilling work and a besotted fiancé. However, after she is brutally attacked, she is forced to reckon with her past traumas, and with the cruelties faced by Native Americans. Barry's atmospheric prose captures the mid-nineteenth century's language and hardscrabble spirit. "Be wise," Winona tells herself. "Trouble always comes and no use wishing it didn't. Thing is, to get through it—and out the other side."



How Much of These Hills Is Gold, *by C Pam Zhang (Riverhead).* In this stylized and complex début novel, two children, born near the end of the gold rush, wander through harsh Western landscapes searching for a place to bury their father, a failed prospector. (Their mother, shipped from China to work on the railroads, died years before.) The story is narrated by the soft, scholastic twelve-year-old Lucy, as she journeys with her younger sibling, Sam, who struts in imitation of their father, and of the cowboys of their time. While the book presents a counter-narrative to conventional tales of America's origins, it also interrogates the more intimate dimensions of belonging and memory, asking, over and over, "What makes a home a home?"



The Hot Hand, *by Ben Cohen (Custom House).* In 1985, a group of cognitive scientists released a study in which they concluded that hot streaks—one of the most avidly contested phenomena in sports—were a myth. Cohen, a sportswriter, begins his exploration of the subject with basketball, but soon broadens his scope to consider Einstein's annus mirabilis, in 1905 (his output: special relativity, the photoelectric effect, and $E=mc^2$), and Shakespeare's, which occurred during the plague year of 1606. Sports statistics offer some answers as to whether streaks indeed reflect heightened abilities rather than chance and circumstance, but, as Cohen notes, the belief in them has its own value, because it implies that people can "transcend their places in the world."



What Is the Grass, *by Mark Doty (Norton).* The author of this appreciation of "Leaves of Grass" animates Walt Whitman's joyful proclamation that everything is connected. Doty interweaves an account of his own coming of age as a gay man with passionate close readings of Whitman that probe the poet's multitudes, showing him to be lustful and wise, sure and self-doubting, and to draw on both Biblical language and the rough yawps of slang to create a new style. In the eighteen-fifties, before the Civil War, Whitman evoked a country in which the kind of affinity Doty practices here might bind us—in which "democracy might be founded in the body, on the affection between bodies"—and called out to his compatriots in that imagined future.

ON TELEVISION

BLACK LIKE ME

"#blackAF," on Netflix.

BY DOREEN ST. FÉLIX

Kenya Barris plays Kenya, the filthy-rich creator of a successful TV show.

Think of the hashtag #blackAF as a millennial remix of mantras of self-love—"Black is beautiful," "I'm black and I'm proud." The phrase, printed on T-shirts and stamped on skin, has become a kind of shorthand for a politics of affirmation. But does it also veil a prickly insecurity? "Black as fuck" is the kind of thing an artist or a businessman might say about his work or his behavior in order to foreclose critique. After all, who is anyone to question anyone else's blackness? Employed earnestly, the phrase makes some people wary: Why the fuck do you feel that you have to proclaim your blackness? On the other hand: Why the fuck is it such big deal to you if I do?

The forty-five-year-old showrunner, producer, and writer Kenya Barris wants to be the commercial auteur of this identity paranoia. He is best known for the show "black-ish," which débuted on ABC in 2014, garnered a wave of hosannas from critics, and spawned two spinoffs. In 2018, he signed a potentially hundred-million-dollar deal with Netflix, a boon to his long-term project to make risky television about the black bourgeoisie. In "#blackAF," Barris's inaugural Netflix series, he stars as Kenya, the filthy-rich creator of a successful show, called "black-ish," who lives in a McMansion in Los Angeles with his six children and his lawyer wife, Joya (a very funny and liberated Rashida Jones). "black-ish" fans will get the most out of "#blackAF," which is like its rawer, foulmouthed twin. As the Hollywood producer Tim Story, playing himself, puts it, in a brutal rib midway through the season, " 'black-ish' seems to tap into the hearts and minds of fifty-five-year-old white women."

"#blackAF" has alienated some black critics, who have argued that it simply retreads passé conversations about race and authenticity. The trap of seeking to be representative is one of the show's subjects; still, Kenya's personal dysphoria inevitably says something about the state of the black race. Non-critics seem to have a higher tolerance for the show's flaws, perhaps because it's funny. Barris isn't trying to make his magnum opus—he just wants to blow off some steam. One of the show's strengths is its filleting of stale network-sitcom character silhouettes. The Barris family is a picture of caustic dysfunction. One son is a "pathological fucking liar"; Kenya berates another for being "soft." The youngest, a baby, toddles into the expansive kitchen and declares, "I shit my diaper, Mommy." It's nothing for Kenya to call his daughter a "THOT," or for her to retort that he is a "dick."

Kenya's garish Balenciaga tracksuits cloak a miser who worries that, in moving on up, from Inglewood to Encino, he's become a fraud, artistic and otherwise, and that he's passed the trait on to his privileged children. In "black-ish," Barris sublimated his creative fear—that he was a glorified barrow boy who had benefitted from the hunger of the "black wave" in Hollywood—into the character of Dre, the head of the "urban division" at an advertising agency. In "#blackAF," you wonder, and worry more than a bit, about whether Barris is acting at all.

The obvious corollary to "#blackAF" is "Curb Your Enthusiasm," but Barris is no Larry David, not yet—his writing doesn't do enough to distinguish the viewpoint of the show from that of its repellent protagonist. "#blackAF" also contains shades of "The Bernie Mac Show" and "Real Husbands of Hollywood," Kevin Hart's prescient, self-skewering series for BET. But Kenya's nouveau-riche anxieties belong most clearly to a broader tradition of black-male complaint: his wild swings from pomposity to soul-deadness and self-doubt recall comedians like Richard Pryor and Chris Rock, and rappers from Future to Jay-Z. His identity

ILLUSTRATION BY CHARLOT KRISTENSEN

crisis is represented by a fat gold chain, which he makes plans to sell—"am I a coon?" he asks himself—but which stays on his neck all season long, an albatross.

I was raised by nineties black television. UPN, Fox, and the WB were flush with sitcoms that featured black characters living in all-black worlds who didn't seem to emit a whiff of self-consciousness: "Martin," "The Wayans Bros.," "Sister, Sister," "Living Single," "A Different World." It's said that only now are we living in the golden age of black film and TV, but that judgment hinges on a thirst for universal appeal. The rupture between nineties sitcoms and the current mode of autobiographical black television reflects the fact that black artists have joined the ranks of TV producers, showrunners, and writers. It also owes something to the investment of the white critical establishment in black culture. Today's satirical series can feel like extravagant forms of therapy made by power brokers who are dealing with the fact that they are no longer broke or powerless. Issa Rae has "Insecure"; Lena Waithe has "Twenties," a fictionalization of her early life as a screenwriter. Hattie, Waithe's avatar, wants to work for the showrunner of "My Bae," a series that she considers pandering and cynical. Her boss, folding her arms—a gesture of encouragement disguised as one of contempt—suggests that Hattie make her own show.

Whereas "black-ish" was shot like a mockumentary, the framing device of "#blackAF" comes from Drea (Iman Benson), Kenya's second-oldest daughter and his intellectual rival. She is making a documentary about her family for her application to the film program at N.Y.U., and Kenya outfits her with a film crew. ("They shot 'The Revenant' with less than this, O.K.?" she says.) "#blackAF" is a messy show about the mess of making television; Barris's casting of some of the "black-ish" actors, and his recycling of the Greek-chorus motif (in the earlier show, a team of demographically diverse people at the advertising company; in the new one, a TV writers' room) gives "#blackAF" a television-for-television-writers appeal. Barris is responding, in part, to the curdling of the Zeitgeist since the Obama era, a period in which any art that seemed to analyze the performance of blackness was immediately deemed resonant. On each episode of "black-ish," Barris used a trademark monologue to link a character's personal crisis to structural racism. In "#blackAF," he parodies the speciousness of that device. "Being dripped is literally part of who we are," Kenya says, unironically invoking slavery to justify his Mr. Porter addiction. The show's treatment of Juneteenth performs a similar function, reminding us of the way in which "black-ish" commemorated the holiday with a soaring piece of edutainment. In this series, perhaps truer to life, Juneteenth is just an excuse to drink brown liquor and bake a "freedom cake."

In the fifth episode, which stands out for its surge of contained conflict, Kenya is asked to speak on a panel about a film, which he loathes, made by an up-and-coming black director. Everyone else, white and black, seems to love it. In advance of the event, he assembles a black-Hollywood counsel, including Tim Story, Will Packer, Ava DuVernay, and Issa Rae—who play themselves—over FaceTime. "We do it all the time with white stuff," Kenya says, after he realizes that his peers are holding back from giving their true opinion of the film. "Why can't we do it with our stuff?" He is roundly dismissed by everyone except Waithe, who agrees to sit on the panel with him and to back him up on his critiques of the movie. But, when the time comes, she sells him out onstage, praising the film and babbling on about the power of representation. Barris and Waithe are impressively willing to parody themselves, but the result feels like self-defense masquerading as satire.

The other seven episodes blur into one another, lacking story or situation. I couldn't get enough of Jones as a loving, self-absorbed, rich-bitch mom, and I will never complain about a Nia Long cameo, especially one in which she's playing a hustler publicist. But "#blackAF" desperately needs fewer riffs and an expanded character universe to leaven its atmosphere of crushing self-indulgence. At the end of the season, Kenya has a pat, sitcom-style epiphany while watching a rerun of "black-ish" on a family vacation to Fiji. "Such a good show," he says to himself. One kind of innocence allowed Barris to make "black-ish." It was another kind that led to "#blackAF." ♦

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MUSICAL EVENTS

RALLY OF THE BIRDS

New recordings, by the pianist Víkingur Ólafsson and by the composer Liza Lim.

BY ALEX ROSS

Ólafsson's playing of Debussy is astonishingly exact and clear, almost translucent.

"The blessed damozel leaned out/ From the gold bar of Heaven." Dante Gabriel Rossetti's lines caught the attention of Claude Debussy in 1887, when the composer was twenty-five. His setting of "The Blessed Damozel," in the form of the orchestral cantata "La Damoiselle Élue," is among his first fully characteristic works, opening a door to a landscape of unearthly radiance. The prelude begins with a spare procession of isolated harmonies: E minor, D minor, C major, D minor. The key of C is the apparent home ground of the piece, but for some thirty bars we wander through various adjacent tonalities and ambiguous zones, in a narcotizing haze.

Finally, at the beginning of a passage marked "*Un peu animé*," or "A bit animated," C major arrives—but it, too, feels new. The music could not be simpler, with a lilting, rising-and-falling melody over block chords, but the addition of B's and A's to the harmony, flavorings tart and sweet, conjures the café and the cabaret, not to mention jazz clubs and lounges that had yet to come into existence. Four bars later, Debussy falls back on a stark E-minor chord that has a vaguely medieval quality, as if this torch song of the future were being performed in a cold room in an ancient castle.

I'd heard "La Damoiselle Élue" several times over the years, but a recent rendition of the prelude, by the young Icelandic pianist Víkingur Ólafsson, made me listen anew. It appears on an album titled "Debussy Rameau," on the Deutsche Grammophon label. Ólafsson plays Debussy's own transcription of the work for piano, and it sounds more modern than the orchestral version, which has traces of Wagner's "Parsifal." The pianist's technique is astonishingly exact and clear, almost translucent. He avoids ostentatiously rolled chords, misty articulation, blurry pedalling, and other atmospherics in which Debussy is too often smothered. There is a gentle sway to the rhythm, as though a steady breeze were pushing the music forward.

Even more wonderful is what happens next. Ólafsson segues from the prelude's final, inconclusive E octave to "Le Rappel des Oiseaux," or "The Rally of the Birds," a delicately swirling piece by Jean-Philippe Rameau. It was written more than a hundred and sixty years before "La Damoiselle Élue," but there is little sense of a sharp stylistic break—a sign both of Rameau's forward-thinking, free-wheeling imagination and of Debussy's acute consciousness of the French past. Ólafsson inevitably modernizes Rameau's music by transferring it from the harpsichord, for which it was written, but the dancing delicacy of his touch prevents any encroachment of Romantic heaviness.

Debussy once said of Rameau's opera "Castor et Pollux" that it is "so personal in tone, so new in construction, that space and time are defeated and Rameau seems to be a contemporary." The same sense of historical collapse takes hold as one listens to Ólafsson's recital, which switches back and forth between Rameau's "Pièces de Clavecin"—among them "The Rally of the Birds"—and selections from Debussy: the Préludes, "Estampes," "Children's Corner," "Images." The idiomatic brilliance of the playing and the ingenuity of the programming com-

ILLUSTRATION BY SIGGI EGGERTSSON

bine to make "Debussy Rameau" one of the most entrancing piano records of recent years.

If Ólafsson's disk offers a refuge of otherworldly beauty, "Extinction Events and Dawn Chorus," a 2018 work by the Australian composer Liza Lim, confronts us with the catastrophic reality of the world as it is. The piece can be heard on a new recording by Klangforum Wien, on Kairos. It is scored for twelve musicians—four winds, three brass, three strings, piano, percussion—and it is dominated by seething, roiling, corrosive textures. At the same time, it echoes the fragmentary melodies of animal voices that have yet to be crushed by the anthropogenic apocalypse. The composer cites Shakespeare's Sonnet 65 in her program note: "How with this rage shall beauty hold a plea?"

Lim also makes mention of the "vast conglomerations of plastic trash" that float in the oceans and disintegrate into toxic particles. She alludes to the awful image of albatross chicks choking on plastic fragments that their mothers have mistaken for food. The extinction of species is likened to the passing away of cultural forms: musical styles, languages, maps. In the score, these processes of obliteration are mimicked in distortions of instrumental voices: coarse attacks, underblown and overblown notes, tongue slaps, glissandos, all manner of scraping and scrubbing sounds in the percussion. Sonic eddies form, with a motif getting caught in a repeating pattern before breaking free. At one point, we hear the noise of crinkling cellophane. Birdlike calls periodically ring out, but they are confined, desperate, strangulated.

This tumultuous soundscape never feels needlessly assaultive or brutal—a tribute to Lim's keen ear for instrumental writing and to her knack for tracing musical gestures that have the fluid shape of organic life. She seems to adopt the point of view of the suffering earth, or even of the lifeless objects that we have ejected into the environment. "There is broken grandeur," she writes, "and there are attempts to sing." The phrase "broken grandeur" captures the music's mesmerizing impact. Ruin is ennobled without being prettified, aestheticized, pushed into the mental distance.

The final section of the piece, "Dawn Chorus," takes a turn toward the hopeful, though it is a low, muted kind of hope. It is a chorus not of birds but of fish—various "chatterbox" species that inhabit Australian coral reefs and make grunting, hooting, and droning noises as the sun rises. To approximate these ritual calls, Lim has her performers set aside their instruments and twirl wind wands (resonators with stretched rubber bands) and operate waldteufels (small drums that make a croaking sound as a cord is drawn through the membrane). Brass tones emerge from those textures and build to a majestic roar before fading to a subterranean murmur, with the contrabassoonist using a tube extension to produce tones below the range of human hearing. As I listened to "Extinction Events" during the coronavirus shutdown, I was reminded of how the long-suppressed music of nature has swelled in volume as humanity goes into temporary retreat.

During the weeks of quarantine, homebound music lovers have been depending more than usual on recordings and streaming music. The likes of Spotify, Apple Music, and YouTube have doubtless profited from the surge, as have major labels and superstar artists. But the paltry royalties doled out by the streaming services will not save the working musicians who have lost income during the shutdown. The virus has exposed more clearly than ever the vicious economic logic of the streaming era, which favors monopolistic consolidation and consumer convenience over an equitable distribution of profits across the musical ecosystem.

An extinction event is looming over the performing arts, and it calls for a change of practices. When we take music for free off the Internet, we should seek ways to give concrete support to the people who made it. Sites such as Bandcamp have a far more generous way of sharing revenue, though nothing equals the impact of paying for a recording directly: the income from a single CD sale is equivalent to that of more than a thousand streams. Streaming also exacts a hidden environmental toll, in the form of increased carbon emissions generated by electricity-consuming servers. If the performing arts are to retain a place in our society, we will have to rethink how we value them—economically, culturally, politically. For now, we can try to repay artists for the immense library of music that we have been given, or, more precisely, that we have taken. ♦

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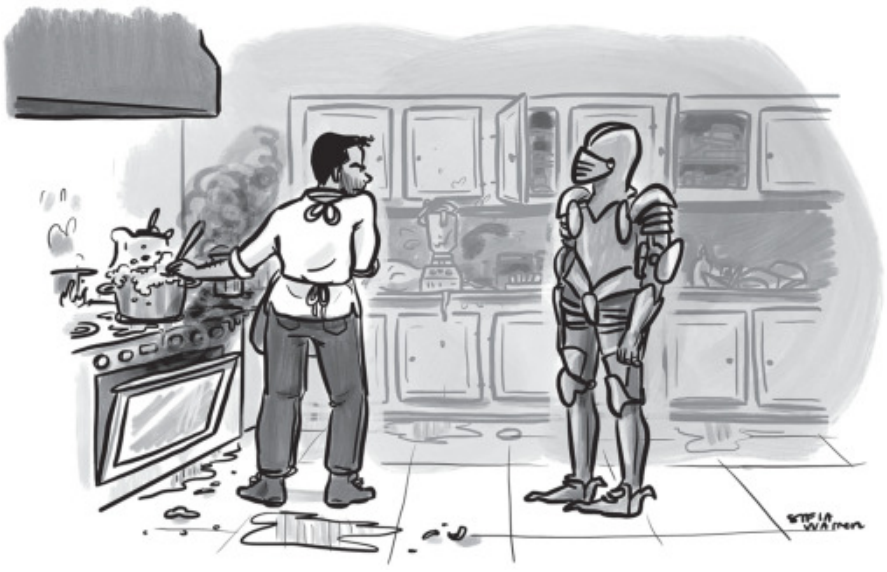
CARTOON CAPTION CONTEST

Each week, we provide a cartoon in need of a caption. You, the reader, submit a caption, we choose three finalists, and you vote for your favorite. Caption submissions for this week's cartoon, by Sofia Warren, must be received by Sunday, May 3rd. The finalists in the April 20th contest appear below. We will announce the winner, and the finalists in this week's contest, in the May 18th issue. Anyone age thirteen or older can enter or vote. To do so, and to read the complete rules, visit contest.newyorker.com.

THIS WEEK'S CONTEST



“ ”

THE FINALISTS

“Of course—we wait forever, then two come at the same time.”
Elizabeth Novick, Brooklyn, N.Y.

“Of all the things we packed, I didn't think to bring my MetroCard.”
Scott Muller, Montclair, N.J.

“Apparently, they wouldn't ask for directions, either.”
John Glenn, Tyler, Texas

THE WINNING CAPTION

“No, you come in on four.”
Colin Mills, Boston, Mass.

COVID-19 RESPONSE FUND

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